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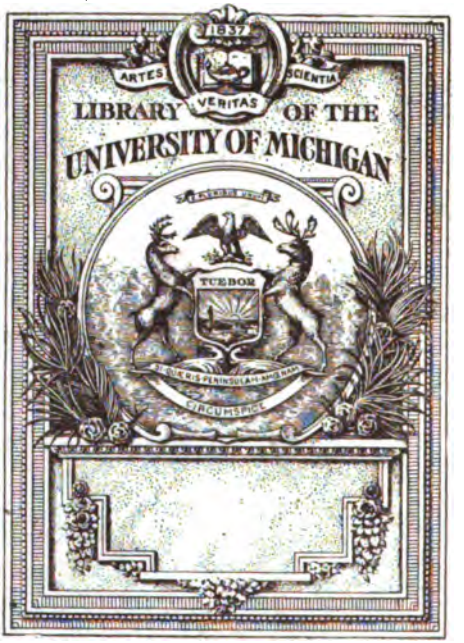
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FORMS OF BEQUESTS.

We are frequently in receipt of letters of inquiry in reg forms of bequests for the benefit of the College. We have special attention to the subject and present the followi relating to different interests of the Institution.

1. I give and bequeath to Albion College, located at A Mich., the sum of $....., the same to be added to, and stitute a part of, the endowment fund of said Albion Co

2. I give and bequeath to Albion College, located at Al Mich., the sum of $.., to be used to endow a Profe ship in said Albion College, such Professorship to be name

3. I give, devise, and bequeath to Albion College, locat Albion, Mich., the following described real estate, to-wit

4. I give and bequeath to Albion College, located at Al Mich., the sum of $....., to be used for the erection building for said Albion College, under the direction according to the plans made by the Board of Trustees o aforesaid College.

5. I give and bequeath to Albion College, located at Al Mich., the sum of $....., to be used to endow the li of said College. No portion of the *principal* of said sum be used for the purchase of books or otherwise alienated the interest of, or increase from, the above-named sum sh devoted exclusively to the purchase of books for said A College library.

YEAR-BOOK

—OF—

ALBION COLLEGE,

—FOR—

1887-88.

ALBION, MICHIGAN.

PUBLISHED BY ALBION COLLEGE.
1888.



WARREN & BI
Printers
ALBION, MI

PREFACE.

In giving this volume to the public we realize that it should be accompanied by a few words of explanation. The volume issued a year ago was a decided departure from the plan pursued by colleges generally, as appearing in their annual catalogues. It was a publication containing the discussion of a variety of questions bearing in some form on the subject of education. This was given in addition to the information ordinarily embraced in a catalogue. It is our intention to continue the policy then inaugurated.

The primary purpose of a college is to afford the means of study and improvement to such young people as may gather at the seat of learning for instruction. It provides buildings for comfort and convenience of work; also libraries, museums, observatories and laboratories, with a faculty of learned men to aid and guide the student in his studies. Ordinarily this is all that is done. And certainly to do this well is to perform a labor of great service to the public. This Albion College is seeking to do with fidelity and in a spirit of progressive scholarship. But it proposes to do something more than this. It aims each year to publish discussions of various themes; some of these for popular reading, and others of a profounder character, that the influence of the institution may reach out far from its halls, and be a help to many who are not enjoying the special advantages it provides for intellectual culture. We shall publish from time to time the results of original investigations, but much of this material will be reserved for special tracts. Yet it is hoped that the Year Book will be the means of awakening an interest in the subject of general education in this and other states, and that especially it will turn the thoughts of talented young men and women to the benefits to be derived from the pursuit of a

college course of study. It is not held that colleges poss some magic by which greatness is manufactured. All gr men are self-made; not that colleges do not supply favora conditions for rapid and vigorous mental growth, but that work through which greatness is developed must be done by individual, whether in college or out of college. Yet colle put within the reach of young people advantages found nowh else, by means of which mental energies can be most efficien employed for personal intellectual growth.

Of this present Year Book Part I. is taken up mostly with discussion of fundamental principles in Philosophy. A gene analysis of mind is given, so that such students in college have not as yet taken up this branch of study, and young peo who contemplate entering college, may have an intelligent v of the work to be done before they make this subject a specia The difference between Inductive Logic and Deductive Logi very generally misunderstood. Fundamentally they are m nearly alike than is supposed. This we have shown in chapter on Logic. In the chapter on Philosophy of the M Life we have endeavored to give a clear idea of the meanin the term Moral Life, so that the student can intelligently e on the study when he reaches it in his course. The Histor Philosophy is commonly a dry and difficult study. This partly due to the fact that the subject is treated as an unsor mass of details, without the guidance of carefully unfolded p ciples of thought. History of Philosophy is a history of spe lative thought, the efforts of the mind to solve the problem being. We have stated the leading theories, the attem solutions of different schools.

A special chapter is given to Theism, as we conceive it to the necessary foundation of all science, the basis of all cor systems of thought. As to the authenticity of the Script there should be no doubt. The reason for church school found in the infinite importance of the gospel, the divine so and absolute authority of the Bible. An outline argumen favor of the truth of the New Testament Scriptures we h

thought might be of service to many who cannot, or will not, take time to study the subject exhaustively.

The other chapters in Part I. are not confined to special branches of study, but relate to questions on which text-books are not written.

Part II. is devoted specially to the discussion of the relations of education to the various vocations in life. Why attach so much importance to education? In what professions or callings is education of special service? Is there any vocation in which no benefit can be derived from the culture of mind? Does not the professional man, the laboring man, the citizen; does not manhood, whatever the demands made upon it, need the development of intellectual energies for the largest results?

Part III. consists of information in regard to the appliances and work of Albion College. This is largely a reprint of Part III. of last year's Annual, with such changes only as are required by the introduction of new methods and the improvements introduced during the past twelve months.

Part IV. is the catalogue of the officers and students of the institution, with the calendar for the year 1888–9.

PART I.

Outline Discussions—College Studies.

CHAPTER I.

ANALYSIS OF MIND.

Scholarship which does not embrace a knowledge of the fac ulties and functions of the human mind cannot surely be sai to be "liberal." It is not creditable to any person to be i ignorance of the powers and modes of activity of that depart ment of his being which lifts him above all other life that dwell on the earth? What is implied in the word man? Something more—much more—than a peculiar physical organization. Hu man nature occupies a different plane from brute nature, and i those elements of difference the exalted character of man's lif is found.

Being consists of matter or spirit. That which is no matter is spirit, and that which is not spirit is matter.

The human mind is spirit, an immaterial substance endowed with powers or faculties which are entirely unlike all the force which belong to the material world. In all its activities it exist in absolute unity; in other words, whatever the mind does i performed by the whole mind, not by some portion or portion of the mind. When we say that the mind possesses faculties we do not mean that it is divided into parts, but that it is capa ble of performing diverse or unlike kinds of operations. "The faculties or powers of the soul are but *different energies* of the one centralized Power." Whether the mind is engaged in thinking, feeling or willing, it is the mind in its unity that is thus employed. In all the diversities of operations there is absolute identity of the spirit.

Let us now give a brief analysis of mind. The most general classification of the powers or modes of activity of the mind is found in this three-fold division:

1. Intellect, or cognitive faculties.
2. Sensibility, or powers of feeling.
3. Will, the faculty of volition or determination.

We have space only for a brief survey of these three sets of faculties. We will first give attention to the intellect as being fundamental to the other two, and as having greater diversity of action.

INTELLECT.—The intellect is the faculty that embraces all the modes of cognition, in perceiving truth, in knowing truth, in tracing out the relations of truth, which has for the product of its action what we call knowledge or intelligence. The following are the modes of action of the intellect:

1. Direct perception. There are two classes of objects of direct perception. One consists of facts, things, events—the outer world and the inner life; material objects in their manifold forms and successive manifestations; and mental operations which enter into the experiences of the days and hours as they pass by. The faculty of the intellect which thus perceives these things, facts or events, is called *sense*. It is the *outer sense* that directly beholds the outer world; the *inner sense* which perceives that which exists in and belongs to the mind and which makes up the content of our mental operations.

The second class of objects of direct perception consists, not of contingent mutable things, but of fundamental universal principles. The faculty which finds these principles we call reason. These principles we designate as ideas of the reason; while reason we define to be the organ of universal or necessary ideas. Sense beholds the physical, the natural, the conditioned; reason apperceives the metaphysical, the supernatural, the unconditioned. Sense brings the multeity of created things before us; reason supplies a foundation for them, gives a basis for relations, and furnishes an explanation of them.

"Sense is that faculty of the mind by which we perceive the

fleeting and changeful phenomena of nature; the faci which we apprehend the various modes in which the sen is affected by external or sensible objects. Reason is the by which we apprehend that which lies beyond sensib nomena, the super-sensible substratum, cause, reason and nation of all phenomena."—*Cocker.*

The product of the action of sense we call percepts; t duct of the action of reason we call ideas. Percepts belon sphere of the contingent; ideas to the sphere of the nec Percepts are as much realities as ideas; they rest back o actually is; ideas express not only what actually is, bu must be, the opposite of which is impossible and unthink

As there can be no employment of sense without some of perception—no seeing without something to be seen, s can be no employment of reason without some object on reason gazes—ideas spring up in the reason because of the and presence of principles for which these ideas stand. could be no ideas—rational apperceivings—without princi be perceived. It would be as absurd to admit or affirm the ence of ideas and at the same time deny the reality of the ol ideas, as to declare or hold that sense-percepts are formed mind without any external world as the exciting cause o percepts. The eye does not any more absolutely behold nal nature than does reason behold the supernatural, t the universal principles, such as substance, cause, orde which are the explanation of nature.

2. The second and only other mode of original cogni mediate and inferential. The faculty of the mind which knowledge, not directly and immediately, but discursive means of some process or steps, is called understanding. T the reflective faculty, the faculty of thought, which reaches through relations which truth sustains. All reasoning b to the understanding. It is the faculty employed in ind logic, by which the sciences are built up, by which syste truth are constructed. It is the great organizing facul which each part of nature is put into relation with all

parts of nature in making a universe. In the operation of this faculty we generalize truth. Particulars are put into classes by virtue of common properties or attributes. We thus get concepts, or class notions, as river, animal, man. In each one of these classes there is an indefinite number of particulars, diverse in some regards, but agreeing in that which is the principle or basis of the class. As, for instance, rivers differ in length, breadth, depth of water, swiftness of current, etc., but they agree in being streams of water, water flowing within banks. The diversity of structure in the animal kingdom is almost without limit, so that no two kinds look alike, or are in every respect alike. Yet there is something in what we call the animal world which is not found in the mineral or vegetable kingdoms, something essential to the existence of the animal structure and life, which is possessed in common by the whole animal kingdom, and which distinguishes it from everything else, and is the ground of the classification we make when we use the word animal. Each human being possesses individual peculiarities, yet all of them in physical structure, and especially in mental faculties, agree in that which is fundamental in their nature, and which authorizes us to put them in a single class embraced in the word man, or the two words human race. It is the understanding which builds up all the classes, to express which language abounds in common names or class terms.

The work of deductive logic also belongs to the understanding. The special principle employed is this: that whatever belongs to the whole belongs to the parts of that whole; whatever may be affirmed of any class may be affirmed of a smaller class contained therein. If all men are mortal, each man is mortal. It is reasoning from the greater to the lesser.

The understanding performs its work—organizes systems of truth and draws inferences by means of judgments which the mind forms through relations which are discovered to exist. In this work both analytic and synthetic processes are employed. "To understand anything is to apprehend it according to certain general notions, ideas and laws."—*Cocker.* "We know or

understand a thing if we are able to bring it, or any part of i under more general ideas."—*Muller.* Thus do we proceed fro the "particular to the general, and from the general to the un versal." All reasoning, all processes of thought, all intellectu operations that employ successive steps, all procedure that i volves the exercise of judgment, all movements that utiliz relations, all mental activities that are engaged in organizatio reflection or reasoning, we put into the department of unde standing. This is the domain of thought proper; it include all intellectual energies that are discursive.

MEMORY.—Memory is that faculty of the mind which retain knowledge heretofore acquired, or recalls into consciousness previous cognition. It is the faculty of representation, re-pre senting that which was formerly present. It embodies tha action of the mind in consciousness by which the continue identity of our being is affirmed. It holds the stores of knowledge secured by past labor which would otherwise perish. Though not a faculty of perception or reasoning—it does not originate, develop or modify knowledge—all our acquisitions would be without value were it not for this power of retention, this faculty by which the past is not allowed to slip from our grasp. In an important sense, therefore, the knowledge possessed by the race, the wealth of civilization, the practical triumphs of mind, are dependent on the work and office of memory.

IMAGINATION.—This is a constructive faculty—not like understanding, developing systems of truth, employing actual relations by the action of rigid judgment in logical reasoning, but—working over material which memory supplies into new forms. It is ideal in its operation. Either it groups together images as a whole according to some fancied relation, or it breaks up images and combinations of material which enter into past experience, originating new images or ideal forms. Performing the former work, it is called fancy; the latter, imagination proper. Its action is not a rigid scientific judgment, employing fundamental relations; but more commonly it transfers relations from the material to the ideal world, or employs imagery in some domain of being to

which it does not actually or naturally belong. Language is thus enriched, the mental furnishing contains more variety, and these intellectual operations in their suggestions not unfrequently lead to the discovery of important truths. Not only is it true that poetry, as appearing in verse and the fine arts, owes a large debt to the imagination, but even science has widened her domain and added to her wealth by the assistance which imagination has rendered.

There are abnormal as well as normal activities of this faculty, the most distressing form of the same appearing in insanity, which may be defined to be a disordered condition of the imagination. Bordering on this is hallucination, which is a form of illusion co-existing with soundness of mind. Dreaming is the action of imagination without the guidance or correction of sense and other necessary conditions of right judgment; while in somnambulism the body comes under the influence of the dreams which pass through the mind.

Day-dreaming or castle-building, in which some persons indulge, exists generally through lack of control of the thoughts —it is a surrender of the intellect to the sway of the involuntary movements of the imagination. The will is passive.

The control of the imagination, the holding it in check, and its guidance into healthful channels, should always be regarded as of vital importance. Without this regulation there is danger that the power of logical thought will be impaired, and the mind be flooded with visions that will corrupt all the fountains of life.

Consciousness.—There is work performed by the intellect which does not come within the scope of the faculties heretofore mentioned. The word consciousness expresses a power or energy of the mind, purely cognitive, not included within the scope of sense, reason, understanding or any other faculty thus far mentioned. It is not a faculty by which knowledge is gained, but a faculty by which mental operations are known and discriminated. It is the mind gazing on its activities—on the knowledge acquired by sense, reason, the understanding, on knowledge in all its forms—together with every species of feeling and the voli-

tions of the will. And it not only recognizes these mental operations, but perceives these phenomena to belong to the mind—sees the ego with its phenomena. And as knowledge embraces the objective as well as the subjective—there must be that which is seen, as well as seeing, in knowledge—consciousness includes that which is beheld in every act of knowledge. Therefore the object of consciousness is threefold—mental operations, the ego to which these operations belong, and the object of these mental operations, that is the thing known. Consciousness, therefore, takes up into itself all knowledge now—at any moment—present to the apprehension of mind, and which through an act of attention is recognized as present. Knowledge exists in consciousness when the eye of the mind is turned upon it. There may be much of knowledge that is not present in consciousness—potential, laid away in the mind, not called up before the view, but yet an actual possession of the intellect, which can be or may be summoned into the field of attention. At any one instant of time we are conscious of but a small part of the knowledge we have actually gained. This comes into consciousness when through favorable conditions the attention is directed to such knowledge.

It is evident that as consciousness is the power of direct and immediate knowledge, as it is intellectual vision gazing upon these mental resources, there can be no appeals from its decisions. Distrust of its decisions would carry with it a denial of the possibility of knowledge. What consciousness affirms to be present in the mind must be there. This is the tribunal of last resort; it is the only tribunal capable of speaking. Consciousness is not only the faculty of knowing, but of knowing that we know, and of knowing what it is that we know—a knowledge of our knowledge, and of all our mental states, including all that is involved in such knowledge, both subjectively and objectively.

SENSIBILITY.—Under this term are grouped all the different capacities or powers of feeling. This department of mind embraces energies or faculties of activity as strictly such as intellect

or will. All feeling comes from the action of psychical powers, produced by the action of these powers; it is not imposed on the mind by causes external to the mind. The exciting cause, as in sensations, may have an existence outside of and independent of the mind, but the resultant feeling is generated in the mind by mental powers. But as feelings are less under our control than cognitions and volitions, sensibility seems to be largely passive. But though in feeling the mind is acted upon, every form of feeling is purely a product of the energies of the soul.

There are three classes of feelings, namely, sensations, sentiments, desires. *Sensations* are feelings generated in the mind through the action of a material object on the nervous system, and supply the necessary condition for sense-perception—the perception of material objects, as through sight, hearing, touch, taste, smell. It must be borne in mind that sensation is not perception—no feeling of itself is perception—but sensation is an invariable antecedent to and condition for perception. Perception is a beholding of the object that has given rise to the sensation, a beholding of it by virtue of the power the mind possesses of objectifying the sensation or tracing it to its source.

Sentiments are feelings awakened within, not by impressions made by external material objects, but grow out of the activity of the mind in thought in its various forms; they spring from within and have nothing to do with organic processes of the body; they are purely psychical or spiritual. They are usually called emotions, and to this class belong jealousy, envy, love, sympathy, joy, reverence, gratitude, wonder, awe, fear, etc.

Desires include a class of feelings differing from both of the preceding in that they are transitive—they pass over to an object without which they could not exist. They are craving feelings, feelings drawing the mind or life towards some special object or end. They enter very largely into the impulses of our being, and act as a stimulus to intellectual activity.

WILL.—Will may be defined as the power of choice, not in the sense of desires or preference, but of determination. Whedon

tells us that will is "the power of the soul by which it is the conscious author of an intentional act." In the action of will there are involved deliberation, determination, and alternativity. It is the power of alternate choice, which is a power of determination requiring more or less of deliberation. Intentionality is the very essence of will; therefore there must be a purpose, something for the will to act upon or with reference to. Without a purpose or an object the will cannot act. It can only put forth a volition to do or to refrain from doing some particular act, or to carry out some particular line of doing.

FREEDOM OF THE WILL.—The definition of will involves its freedom. If it be the "power of alternate choice," it possesses the ability to choose otherwise than the choice made. If the will simply declares or registers the direction of some external force upon the mind there is no determination in it; it is then only a medium of transmission; all the meaning is thus taken out of the word will. To be will at all there must be freedom. But in saying that the will is free we do not put it beyond or outside of conditions of activity. It is under law. There are conditions that must be observed in order that volitions shall be formed. Without these the will cannot act. There must be an object for its action perceived by the mind. With mental blindness—intellectual non-action—there can be no activity of will in any way. The will can issue its determinations only in the direction of some perceived end. It does not act without cause, that is, without reason. The highest species of causality lies at the basis of volitions—not a force acting on the mind from without, but purpose or reason appearing to the mind through intellectual self-activity. Reason is the enlightener of will, and enables us to choose. A being that does not possess reason must be destitute of will.

But to deny the freedom of the will is to deny responsibility, confuse virtue and vice, take all meaning out of the words reward and punishment, make the restraints of society and the penalties prescribed by human governments to be tyranny, aye, even tyranny itself to be without culpability. There can thus

be no guilt in any act, and condemnation and approval also, with a multitude of other terms, should be stricken from our vocabulary. If the will is not free, consciousness is continually telling a falsehood, and nothing in history or the experiences of life is what it seems to be.

RELATIONS OF INTELLECT, SENSIBILITY AND WILL TO EACH OTHER.—As these terms express only different energies of the same centralized power, the mind or soul, we should expect to find all mental faculties existing in a state of mutual inter-dependence. The intellect acts under the influence of the sensibility; the sensibility depends on the intellect; the will is enlightened by the intellect and aids the intellect in its work; the sensibility engages the will in specific lines of action and influences the vigor of its volitions. It is seldom that one faculty acts alone, perhaps never. Cognitions, feelings and volitions, enter together into our mental operations, and as factors supply the completeness of the experiences or movements of mind.

The foregoing analysis of mind is not presented as a treatise on Psychology, but is intended only to point out to the student, in the briefest and most general outline, a field of study of great importance, and which every one must traverse who would understand the energies of his own life, and the principles which distinguish man from the lower animal world.

CHAPTER II.

PHILOSOPHY OF THE MORAL LIFE.

The words duty, obligation, responsibility, it is conceded, rightfully apply to man. He possesses a moral nature. He can perform acts which are properly called right, and acts which may be characterized as wrong. His deeds possess merit and demerit. He is a subject of rewards and punishments. We hold him responsible for what he does, approving or disapproving accord-

ing to the character of his deeds. We speak of him as virtuous or vicious, and treat him as an object of praise or condemnation. We apply the words good and bad to him in a very different sense from that employed when we speak of an inanimate object, or any portion of the brute world. He is conscious of feelings of approval and disapproval, of satisfaction or shame, which indicate the existence of a nature endowed with capabilities of doing right and wrong. It is conceded that he has rights and owes duties, that he sustains obligations to his fellow men, and that he is justly held to be responsible for all his acts. Upon what do all these special judgments and sentiments depend? What is there in his nature that makes him a moral being and the subject of a moral government?

We first note the fact that man possesses the capability of freedom of action. He has the power within himself, without constraint or compulsion, to choose and determine the course he will pursue. He is endowed with will, and his will is free. In speaking of the action and freedom of the will it is not meant that the power of volition is independent of other powers, but that the mind, coming into possession of knowledge, perceiving the right inhering in some specific course of action, or the profit to be derived therefrom, is able, deliberately, in view of the knowledge gained, to decide upon the activities to be put forth. The power of deciding is in the mind; the act does not spring from some cause external to the mind. Nor is the volition a product of knowledge, or of feeling awakened by knowledge, but the will acts with reference to the knowledge; it only acts as there is some occasion to act. Every volition must rest upon some object. There can be no volition without motives, but the will is able to choose one of two antagonistic motives—one to the exclusion of the other—and put forth its volition accordingly. Will is a self-determining power; and in saying that man is endowed with will we are saying that he possesses the power of self-determination. And as a faculty is a *mode of energy*, will is the power of the mind to deliberate, and as the result of its deliberations freely to choose lines of activity. That

we possess this power is a fact or declaration of consciousness. That we do not question the reality of this power is evident from the fact that we approve certain classes of acts we perform, take credit to ourselves for performing them, believe them meritorious; while the opposite class is spoken of as wrong, and is attended by a judgment and feeling of condemnation.

The constitution of society; the existence, functions and methods of government; the principles of jurisprudence; the law of honor; the judgment embodied in public opinion; these all recognize our capability of putting forth intentional acts. Individual life and all social relations are built on this as a foundation. Without this faculty not only would all judgments of approval and condemnation be without reason, but there would be no principle in the soul out of which rational society or organized rational government could issue.

The foregoing discussions recognize the necessity of reason, the intellectual faculty by which universal or fundamental principles are discerned, the faculty by which the *real* is known as implied in all phenomena; a faculty capable of finding underlying principles for the building up of systems of truth. We do not mean by reason the faculty of reasoning which is discursive, and by which inferences are drawn through logical judgment—a process of the understanding—but we are speaking of the faculty of universal ideas, which knows, not discursively, but intuitively; which discovers directly, by virtue of the constitution of the human mind, what we call first principles, truth that is axiomatic and universal. By virtue of the reason we possess a light which nothing can obscure, and which illuminates the whole sphere of truth, and the pathway to, and the aisles through, the vast temple of knowledge. Without reason there could be no such faculty as will. Surely the faculty of self-determination, without the ability to find the foundations of truth, that is, realities as the basis for all right personal experience and doing, would be comparatively useless. Among the truths apperceived by reason is the fact of moral distinction in acts. Our apprehension of this quality grows out of the constitution

of the human mind, living the life we are forced to live, and which it is natural for us to live, as constituent members of society. These relations involve the existence of the principle, the apprehension of which spontaneously arises in the fact of associated life itself, just as causality is known as implied in effects or change.

The mind having come into possession of the principle or fact of moral distinctions in the acts of human beings, it is evident that the ability to determine the question of the agreement of our acts with the law of right is purely a question of knowledge. This is judicial; we sit in judgment upon our deeds; and the ability to do this justly depends on the extent and accuracy of knowledge in the sphere to which the acts belong. This is the work of the understanding.

Not to carry this discussion any further than is necessary to unfold the philosophy of the moral life, we find thus that there are two great factors: (1) The intellect, with its different modes of energy producing cognitions—the reason finding the moral law, and sense and the understanding, with the co-operation of memory, supplying us with a wide range of knowledge of objects and realities for human activities; and (2) the will, a self-determining power, the faculty of the soul by which it is "capable of putting forth an intentional act." This is a faculty of deliberation and choice. The faculty of choice, with a knowledge of the moral law and a discriminating knowledge of objects and relations as a foundation for choice, supplies us with the elements out of which we draw the philosophy of the moral life.

Reason, designated conscience, discovers the moral law; moral judgment decides upon the character of acts as in harmony with, or in violation of, the moral law; and the feelings named moral sentiments, follow the exercise of the judgment. The reason cannot be educated; the moral judgments are capable of being educated; and the moral sentiments growing out of the judgments are in harmony with them.

As the brute world does not possess reason, by which first principles are discovered; as it cannot apprehend abstract prin-

ciples, and therefore is incapable of carrying forward a process of induction so as to get a knowledge of science; as it can neither build up nor understand systems of truth; as it cannot grasp logical relations so as to form logical judgments; as it does not possess that foundation in knowledge which is necessary for the action of will; it is therefore destitute of will—the faculty of deliberation and choice. It acts through impulse, not through reason.

CHAPTER III.

LOGIC.

Logic is the "science of reasoning," the "science of thought," the "science of discursive thought," the "science of the law of thought." All these expressions will be perceived to have the same meaning. The word thought does not stand for every form of cognition, but only those forms which are discursive, which proceed by steps, in which inferences are drawn From this therefore we exclude all that vast body of cognitions which are intuitive—through sense or reason—which belong to spontaneous consciousness. Still further, we exclude the results of the activity of the intellect in what is called representative consciousness, as appearing in memory and imagination. Thought is confined wholly to the domain of reflective consciousness, in which relations are discovered, judgments formed, and inferences drawn.

The definition that Logic is the "science of the laws of thought" brings out the fact that there is a fixed or invariable order in the steps which constitute thought. There is a uniformity of mental operations for the generation of thought from which we cannot depart. These statements are true in both Inductive and Deductive Logic. Indeed, all knowledge depends upon fixed conditions, which must be observed, and as the conditions are regarded, knowledge is an invariable result. And when we employ logical processes there must be a rigid adher-

ence to laws which grow out of the constitution of the human mind. Psychology is therefore a science, and Logic, which is one department of Psychology, is a science existing under a distinct code of laws.

Logic is divided into two parts, namely, Inductive Logic and Deductive Logic. All reasoning may be put into one of these departments of thought. Deductive Logic is said to consist of reasoning from the general to the particular; and Inductive Logic of reasoning from particulars to the general. The definition given to Deductive Logic is unquestionably valid. It is covered by Aristotle's dicta, that is, *Dicta de omni et nullo* explained to mean—"Whatever is predicated of a term distributed, whether affirmatively or negatively, may be predicated in like manner of everything contained under it"—in other words, whatever is true of a class is true of each member of the class; that which belongs to the genus belongs to the species. The reason for this is evident. A genus consists of or is characterized by that which is common to all the species which compose it. Each species may contain something not found in the genus, but by eliminating everything not common to them all, that which is common or universal gives us the content of the genus. This genesis of the genus or higher class being regarded, the truth of the principle is apparent. Hence in Deductive Logic we reason with infallible certainty from universals to generals, and from generals to particulars.

The purpose of formal logic is to give the processes, and supply rules to guard from error in the processes of inferring the particular from the general and the general from the universal. The only truth regarded is the correctness of relations. The premises being given, the conclusion necessarily follows. The truth of the premises must be sought in science, history, business—in the department of thought from which the premises are drawn. Logic concerns itself only with the inference warranted by the premises employed. Only formal fallacies—not material fallacies—may properly demand exposure in logic. Deductive Logic is not responsible for the fallacies contained in

false premises unless it has itself constructed these premises, which rarely occurs. The great work of logic is therefore to guard the processes of inference, so that no false or unwarranted conclusion be drawn. Doing this it has little else to do.

Inductive Logic has a more difficult work to perform. Its office in great part is to make the premises which Deductive Logic employs. It must construct the classes and genera; it must find the general laws which prevail. It must build up the systems of science. It must bring the multeity of objects of experience and observation into a unity of thought. Its work is not complete until it finds a place for all individuals or particulars in systems of related truth. Nothing in the universe of created being stands alone; all parts are in relation with each other, constructed on a plan of embodied and related thought; and Inductive Logic traces out the plan and assigns each particular thing its place in the plan. It has constructed all the physical sciences, and also the science of mind. The entire world of the known, so far as it comes within the range of science, is the outcome of Inductive Logic; and future discoveries of truth will be made through the light which this method of research brings to the entrance of the world of the unknown.

The foundation principle in Inductive Logic is that nature is uniform—not a homogeneity, but a collection of systems of truth ordained by an Infinite Intelligence, the absolute accord or complete uniformity guaranteed by the unerring wisdom of the Creator who made everything as it is for a sufficient reason. The doctrine of sufficient reason excludes all possible irregularity. It follows, therefore, that all things were made in perfect agreement; the universe is a mighty unit; the world of the unknown exists under the same laws as the world of the known; and as the logic of the world of the known prevails also in every part of the world of the unknown, no matter how far we penetrate into that now unknown territory, the light of present knowledge will be an unerring guide in our search for new truth.

Is it correct to say that the method of Inductive Logic consists in reasoning from particulars to the general? In other

words, are our premises particulars, and our conclusions generals? If so our inferences are broader than our premises, and the whole system of Inductive Logic is comparatively worthless. The fact is that there is a universal somewhere in our premises out of which the conclusion is drawn; hence in the Inductive syllogism, we reason from the universal through the particulars to the general. The universal, which is the major premise, is sometimes stated to be the uniformity of nature. That nature is uniform, that every part of it is under law, and therefore sustains invariable relations, that it comprises a vast system into which no irregularities enter, is accepted to-day as a postulate of science. There is, however, a universal principle back of the uniformity of nature, which is a ground and reason for this uniformity, namely, infinite intelligence. In the infinite intelligence we find a sufficient and absolute ground for nature's uniformity. We get the doctrine of sufficient reason, a reason for the existence of things that are, and for their being as they are. This guarantees uniformity. Now as the infinite intelligence of God's being is a pledge of uniformity, and law is an expression of uniformity, and therefore everything must be under law, and if under law all parts of the same must sustain mutual relations, nature must be a vast *system* of being, a mighty *unit*.

In the inductive syllogism, the major premise, whether considered as the uniformity of nature or the principle of sufficient reason, is universal and therefore necessary and infallible. The minor premise is drawn from our experience or observation, and it is in this that the uncertainty in our reasoning takes its rise. Our knowledge is partial and fallible. We are liable to make mistakes in our reading of science, and to the extent we err at this point our conclusions will be unreliable. But if this minor premise be accurate, the inference drawn should be absolutely correct.

Inductive reasoning is largely a reasoning from analogy. This is commonly designated as reasoning from resemblances, and as resemblances are often superficial, this mode of reasoning

is regarded as of but little value. The fact is, however, that it is reasoning from relations, and as relations underlie all systems of truth—these systems are built up of relations—it is reasoning from the fundamental plans or order by which nature is constituted. It is not, then, reasoning from resemblances of things, but from identity or equality of relations which things sustain to each other. Relations are as absolute as the perfection of infinite intelligence which establishes them. If the minor premise is based upon mathematical proportion, or structural correspondence, or fundamental similarity, as these relations express an invariable plan in the constitution of things—a translucence of the universal in the general and particular—it will be as free from possible error as the universal major itself. But the liability of mistake grows out of the very common misapprehension of the relations themselves.

While Deductive Logic is not employed to discover truth, but to make truth clear and guard it from fallacies, it is the purpose of Inductive Logic to discover truth, to redeem the world of the unknown from the darkness in which it is enshrouded, and make it the world of the known.

CHAPTER IV.

PROBLEMS OF PHILOSOPHY.

Man finds himself in the midst of an environment. Nature surrounds him on every side. The mind itself is enclosed by a body. What is man? Whence did he come? Whither is he going? What is his origin? What is nature and what is its source? Is there a supernatural, and if so what relations does it bear to the human race and the universe? These and other questions which lie along this line have forced themselves on our attention from a very early period in the history of man. God, man and nature, are the themes of philosophy, and with

these themes the mind has been wrestling in all ages of the world.

The solution of these problems depends on the capabilities of mind to find truth. What are the objects of cognition? Can I penetrate my own life and know that which is within? Is the percipient self an object of cognition? Can I look out beyond self and bring the non-ego within the scope of knowledge? Four distinct schools—to say nothing of subdivisions—have arisen and sought to solve the problems of philosophy. One school maintains that the objects of knowledge belong to the material world and that only. If there be any other world it is not an object of cognition. In the last analysis this reduces the mind to phenomena of matter. Here we have materialism. Another school asserts that the field of knowledge is purely subjective—the ego and the ego only. The outer world as apprehended by us is unreal; it consists of mental images delusively appearing as outward material realities. This is idealism. There is a third school of thinkers who tell us that it is impossible to find reality of any kind; that neither the ego or non-ego, matter or spirit, is an object of cognition. This is skepticism. Wherever we look, towards self or away from self, we are unable to find reality. There is another class, which embraces the greater part of the human race, which maintains that there is an outer and an inner world, matter and spirit, the ego and non-ego, both of which are objects of cognition. This is realism, employing the term according to its natural meaning. Starting with these diverse and opposite theories of cognition, it is not strange that the systems wrought out are antagonistic. The battle of thought has been waged without any hope of reconciliation, for at the outset each maintains what the other stoutly denies.

For philosophy there must be a foundation or starting point. This foundation cannot be made or wrought out; it must be primary and intuitional. Nothing can be proven except from truth which is known without proof. To elaborate there must be something to elaborate from already in possession of the

mind. The question in philosophy embracing all subordinate questions is being. Is there the infinite? is there the finite? If an infinite can there be the finite? and if the finite can there be an infinite? If in seeking to unfold the problem of being we start with the infinite, can we find the finite; and if we assume that we possess a knowledge of the finite, through or out of this knowledge can we reach the infinite? How can the problem of being, under any theory of cognition, be employed so as to get a consistent whole.

The most eminent of the systems of philosophy in the East was the Hindoo, in its rise dating back many hundreds of years before Christ. Not only was India a centre of philosophic thought, but also China, Persia, Egypt, Phœnicia and Chaldea. The Hebrew writings are not generally spoken of as philosophic, because only in a subordinate sense were they human speculations. If given by divine inspiration the problems and treatment of problems, both were by authority. They do not represent the struggles of the human mind in its search for truth. In the countries just mentioned we find what is called ancient philosophy, or the philosophy of the East.

The speculations of these countries are considerably unlike, but they all started with unity, and endeavored, from the conception of unity, to explain the manifoldness of nature and of human relations. Absolute being according to Brahmanism consisted of unity, not the unity of aggregation or oneness of related parts; not differentiated perfection, but unicity, that excluded all differentiation. As thinking and feeling and willing are unlike mental energies, Brahm did not think or feel or will. He was spoken of as a luminous shadow. But whence the universe as it appears to us? The philosophers of the East had no conception of creation, or if they had such a conception they discarded it from their systems of teaching. To them nature was an emanation from Brahm. The beginning of emanation took place when Brahm, by a process of specialization, became the trinity—Brahma, Vishnu and Seva. This was the initiation of imperfection. According to an order that is laid

down with some degree of minuteness, there came forth nature, multiform, broken up into parts, composed of matter, which is the principle of evil, because it contains the very essence of limitation and specialization. Therefore nature, as we know it in our experience, brings us into a state full of imperfection, to escape from which would be the greatest good. In diversity there is activity, which is evil; in unity there is the absence of activity, the blessedness of rest. Therefore the highest good of man, for which he should look and prepare, is re-absorption into Brahm. The doctrine of transmigration was a leading tenet in Hindu philosophy, and, indeed, was common to the philosophies of the East.

But is nature real? Is this seeming diversity an actual diversity of real objects? No, nature as it appears is only phenomenally real. It does exist as phenomena, but not as diverse states and forms of actual substance. Phenomenally only did Brahm unfold himself into Brahma, Vishnu and Seva, and into material objects. He who gets into knowledge of and communion with absolute truth is able to say there is nothing but Brahm; he is able to perceive there is Brahm only. Thus starting from unit as unicity and inactivity, the philosopher landed in a universe which was a whirl of delusions from which it was of infinite moment that he make his escape as soon as possible. A system of philosophy with such an outcome is a dismal failure. Its logic was good enough, but its starting afforded no ground for the building up of a system which met any of the wants of the human race. It brought no hope to any individual human soul. Blessedness consisted in losing individuality, in being merged into a state of unconscious inactivity, an absorption into Brahm. How different the foundation the Bible gives us! God at the beginning, not unconscious passivity, but infinite activity, who is Omnipotent and Omniscient, created the universe, freely fashioned all things according to a plan existing in his own mind, and established nature as it is to carry out a purpose of infinite wisdom. All things are real, are the product of an infinitely intelligent will, and com-

prise a system under law, and in harmony with the reason of man.

The western philosophy, otherwise called Grecian Philosophy, which took its rise about six hundred years before Christ, in most respects was the direct opposite of the speculations of the East. While the eastern philosophy began with unity, the western philosophy began with diversity. Recognizing, as most of the schools did, the reality of finite nature, it sought to find the source of the same. The special schools differed greatly from each other, yet in the main they rested their teachings on their knowledge or views of the complex realities of the cosmos. They reasoned from multeity towards unity, while the Hindoos reasoned from unity toward multeity. Aristotle started with the particular, but never reached the universal, and with him the general notion had no real content. He could not find a personal God. Neither Epicurus nor Zeno, both beginning with matter, could get any higher than matter. Plato, however, took the *a priori* method, affirming the being of a God, giving reality to universals, and making reality to consist of the principle of the universal—unlike most of the philosophers of the West—he held that particulars did not actually exist, but were in a state of becoming. They were neither something nor nothing, but between the two—a shadowy reality.

In so far as the schools of the West made the finite the foundation and starting point of their philosophy, they conld not get beyond the finite; they could not reach up to God. To find God we must begin with him. He cannot be known as an inference from nature, for thus the inference would be broader than the premises; but the unconditioned is implied in the conditioned, a necessity to account for and explain the conditioned. Thus in the presence of nature reason finds God as a solution of the problem of nature.

In modern philosophies we find many forms of discussion somewhat unlike ancient speculations, but they pertain to the same problems of the objects and modes of cognition. These

three and only these three realms are entered, of man, nature, God. English thought obtained a materialistic tendency from the teachings of such men as Bacon and Locke, that there was nothing in intelligence which did not first appear in sensations. Thus there was no place for reason in the human mind. This foundation of materialism paved the way for skepticism which not only dispensed with man's spiritual nature, but annihilated God, or at least put him out of the reach of cognition. German philosophy from an early day took on the type of idealism—with Kant, Ideal Duealisim; with Fichte, Subjective Idealism ; with Schelling, Pantheism ; with Hegel, Pure Idealism. Though being much less prominent than in Germany, Idealism has yet made considerable inroads into Anglo-Saxon thought.

In recent days in most civilized lands Naturalism, Spontaneous Generation and Evolution have attracted much attention and come to occupy a prominent place among the speculations of learned men. The last phase of modern thought assumes the cognomen of "New Philosophy." Differing radically in some particulars, the writers in this school all avow agnosticism. God cannot be found, and skepticism runs all through the domain where knowledge is usually sought. It gives us a dreary outlook into the world of truth, and paralyzes the loftiest powers of our intellectual being. The "New Philosophy" in its teachings makes all philosophy impossible. Ignorance is its watchword, yet it dogmatizes as though it were infallible. To this class belong such writers as Spencer and Huxley.

But in the midst of all the speculations of men—honestly searching after truth, or perversely seeking to subvert its foundations—Christianity with God as the Creator of the Universe and the Father of the race, brings harmony into the relations of the infinite and finite, and lifts us out of the realm of agnosticism so that God is knowable and the realities of reason are the realities of things.

CHAPTER V.

THEISM.

Theism is a solution of the problem of the world. It is an adequate solution, and the only adequate solution, of the existence and relations of the cosmos. We believe in the being of a God because we thus have a philosophical foundation for nature, and without a God nature as a fact and in its relations is wholly inexplicable. The theist does not attempt to demonstrate the being of a God. He does not find God as the outcome of a chain of reasoning, as an inference in logic, but as a necessary antecedent of the world and world-order, as a sufficient and only possible cause of conditioned being. This is the method of science in that which is grandest and most far-reaching in its determinations. The physicist has never, with the crucible or pickaxe, the telescope or microscope, been able to discover the principle of universal gravitation. But why has it an undisputed place in science? Because it and it only fully accounts for the positions and movements of the heavenly bodies. Who has ever discovered the inter-stellar ether which is the basis of the accepted theory of light? It has wholly eluded the search of the keenest investigator. Yet no one thinks of repudiating the theory, from the fact that it solves the problems involved in the known laws of light. The nebular hypothesis of the universe is an accredited tenet in scientific circles; not that it has been proven that all matter was once in a nebulous state—or that proof is possible—but because there is thus supplied a condition out of which worlds could be formed, and movements and regular orbits of worlds evolved, and the mass relations of the universe secured. Even though a primary nebula was not a strict necessity for these results, yet as the condition appears to be eminently favorable to this outcome, physicists with great unanimity, adopt the theory. No one has ever penetrated to the heart of the earth to determine its state; but to account for the regular increase of temperature, as we

leave the surface, discovered by deep borings, geologists tell us that the central portions are a liquid mass. In this theory they justify themselves because they affirm they can find no other adequate cause. This is the method of science employed in the minutest things and in the grandest reach of truth.

Theism rests on the same foundation, only far more solid. The existence of the finite universe has never been accounted for on any other hypothesis not only, but in the nature of the case, no other reason can be found for it than the action of an infinitely intelligent will. For the conditioned there must be the unconditioned. The universe is an event of time; it must have had a beginning. That an event, either great or small, can originate without a cause is unthinkable. That an event can originate without an adequate cause is unthinkable. The universe is a vast whole, a unit of indefinite number and variety of parts, acting in harmony all under law, as though swung in the hand of infinite reason. But one possible explanation can be given—there is a God, a God who created the universe and made it what it is. Back of matter and back of finite mind there must be self-existent spirit.

Therefore there is no science and there can be no philosophy without a God. These are the readings of Divine thought, the unfolding of a system which rests on the employment of Divine energies. To separate science from God would leave us nothing with which to account for, produce or energize science.

All truth is an outflow from God's nature, and no man can teach truth in its real deep meaning without starting from the Infinite. Science with no God in it is lame, and deaf, and blind; it is without purpose; there is within it no voice of intelligence; it is a stupendous accident, and hence presenting to reason no lessons of instruction. All the light of science comes from God's nature; and he that dwells in God dwells in light adequate to the explanation of all portions of this created universe. Without the recognition of God it is darkness unrelieved by a single ray of light.

Any institution of learning that does not stand on the God-

platform, which does not shape everything by the God-idea, throws all truth into orphanage and plunges the intellect of the student into the abyss of darkness. Truth demands an "ultimate of ultimates," and reason affirms that this is God.

CHAPTER VI.

AUTHENTICITY OF NEW TESTAMENT SCRIPTURES.

Christianity, as a system of doctrine, as a body of history, and as a spiritual force and life is in the world, and has been for eighteen centuries and more. Whence did it come? how did it take its rise?

After four thousand years of cumulative prophetic utterances of redemption through divine mercy; and after fifteen hundred years of what is regarded as theocratic rule over the Jews as a chosen people, in the depths of the night over the plains of Judea, the angels, we are told, break out with the song of "Glory to God in the highest, and on earth peace and good will toward men," for one of their number had just declared to the shepherds, "Unto you is born this day, in the city of David, a Saviour which is Christ the Lord." Following this we have the historic record of a life of wonderful, even unparalleled perfection, ending in crucifixion, which is followed by resurrection from the dead and triumphal ascension into the heavens. Christianity is a religious system which rests back on the teachings, character and office of the man Christ Jesus, who, Paul says, was "God manifest in the flesh."

As the civilized world accept Christianity as a divine provision for the salvation of men; as in all the great countries of the earth the Bible is a sacred book, and Christ is looked upon as the fulfillment of the prophesies and outcome of the entire system of the Old Testament; let us inquire into the character of the evidence on which the claims of the authenticity of the Scripture records rest. The first thing that meets us in our

study of the subject is that the testimony on which we must depend is human. The witnesses are men. They who tell us what they heard Christ say, who tell us of miracles wrought by him, who report his teachings, who have made a record of his trial, crucifixion and resurrection from the dead, are men; and who does not know that it is a common thing, and has been since the world began, for human beings to perjure themselves as witnesses? May not this testimony be a great body of perjury?

We meet this inquiry with the assertion that there is a class of testimony which, under the circumstances or relations in which it was spoken, no human being could possibly give if it were false. There is testimony that must be true; it is grossly absurd to suppose it untrue; and to this class belongs the testimony of the early Christian witnesses.

1. They must have been honest.

No reason can be given for the teachings of the apostles, the statements made by them involving historic events connected with the life of Christ, if their statements were not honestly made. Human beings do not perform acts without some motive; and there are only two conceivable motives that can operate under certain circumstances; one of these is self-interest, and the other is love of and fidelity to the truth. Now when an individual bears testimony out of which no earthly good can accrue to himself, and it is evident no earthly benefit can accrue; when, still farther, he must know that such testimony is in opposition to every temporal interest, the testimony rendered can only be given under the most profound conviction of truth.

Let us put the case in this form: Will a man tell a gross falsehood, and stick to it, when he knows he will get no benefit from it from any source, bnt that the consequence will be his loss of everything—friends, property, position, with every hope blasted, despised by the people, hooted at along the streets, disowned of father and mother, suffering every hardship, driven off into the mountains, to take refuge in the caves of the earth, and perhaps to be put to death, nothing to gain, everything to lose, assaulted by the populace and persecuted by the state?

No motive can be found for the testimony and lives of these New Testament witnesses but the profoundest conviction of the truth of all their utterances. Not only must they have believed what they said to be true, but they must have conceived the truth to be of infinite importance, so important as to lead them to abandon all earthly interests; for they shaped their lives in harmony with the truth witnessed by them, sacrificing every temporal good. Under these circumstances no charge of deception can have the slightest color of reality. What their fate would be if they were followers of Jesus was evident from the moment of his arrest. They could not mistake the lesson of his trial. They surely would behold their own destiny when they saw him hanging on the cross. If their Leader was ignominiously put to death by the government, amid manifestations of the bitterest hatred of those in power, will the slightest mercy be shown them if they persist in carrying forward the movement he inaugurated? But what did they do? They began to preach Jesus Christ as the Messiah right in Jerusalem, under the very shadow of the Jewish temple. They took the most extreme positions; they declared he had been murdered. They arraigned the state; they arraigned the high priests as guilty of the blackest crime known to history. They did not skulk away into secret places to tell their story. They scorned persecution; they boldly met death as in the very den of lions, seeking only to witness a good profession. Could such witnesses be dishonest?

2. They were competent.

The only suggestion of possible incompetency is found in the theory that these early witnesses were fanatics. Insane men surely are not competent witnesses. Now fanatics are always one-sided, and their one-sidedness is in the exact ratio of their fanaticism. Persons of large hopes, when everything moves as they want it, in a mighty tide, indulge extravagant anticipations. Political campaigns engender a large amount of fanaticism. Nearly every campaign worker, conferring only with persons of his own party, looking at but one side of the movement, catching the inspiration of his partisan surroundings, is over-sanguine of

success. Gazing at the forces which favor his movements, and not giving sufficient value to opposing influences which are practically at a greater remove from him, he is sure to anticipate favorable results which will not be realized. It is a pertinent question in this connection when we ask, were not the circumstances such as to mislead the early Christians through a mental intoxication? Did they not indulge the wildest hopes, so that life was not a sober reality, but an entrancing dream? Let us carefully consider this point.

If they were in a rhapsodic state this will appear in their utterances. Read the narratives of the evangelists, and the record in the Acts. Was any testimony ever more calmly given, with less flourish, a more unvarnished tale? This is so marked that it has excited the wonder of the ages. And it will be observed, still further, that these witnesses speak of what they saw, events connected with and involving the physical world upon which their eyes gazed. They spin no theories; they only mention facts that came within their observation. There are no gorgeous anticipations, but plain sensuous scenes in the natural range of experience. Christ's disciples were with him on the Sea of Galilee, where, as he spoke, the storm was hushed into silence, and they make a plain statement of the fact. They stood by his side when at his word the son of the widow of Nain was restored to his mother. The record is given with no flourish and no comments. They hear the sermon on the mount, and here we have it, incomparable in the literature and teachings of all lands. They stood by when he was nailed to the cross, and Jewish and profane history confirm the truth of their plain record. They tell us he appeared to them after his crncifixion and burial, that they talked with him, saw the wounds in his body, and ate with him, and history has not denied that the grave was empty, though guarded by Roman soldiers.

The point at which fanaticism must begin, if anywhere, would be after the crucifixion of Christ. If there had been any before, that scene would surely have dispelled it all. If he rose from the dead then was he the Christ, and Christianity has a di-

vine foundation; if he did not rise, then is it an imposture. That they believed he rose is conceded, for we have already shown they must have been honest men. This we are compelled to accept. Either he did rise and was seen by them, or they were so completely under the control of fanaticism, so deluded by the visions of a disturbed brain, that the subjective became objective, that they supposed themselves to have seen and heard what they did not see or hear; and the conviction was so vivid and strong they were ready to die for it. If this were so there must have been some peculiar and overwhelming combination of circumstances fitted to awaken enthusiasm which took possession of them in spite of themselves. They must have reached a point in their relations to Christ's kingdom—so near ultimate triumph—that the very heavens seemed to be flooding them with the glory of successful dominion. This is on the supposition that Christ did not rise from the dead, but that they became wrought up to such a state of expectation it was not a matter of sight but purely of feeling.

How does enthusiasm grow? what does it feed upon? Does it live on reverses, feed and grow on disappointments? When the panic occurred at the first Bull Run battle, and our troops were flying toward Washington, was our army converted into a great body of fanatics? Was there an exuberance of enthusiasm? When the condemned man is kneeling on his coffin in sight of the gallows where he is soon to swing, is there anything in his surroundings and the realities of the hour to awaken fanaticism in his breast? Are not these the moments in which the heart is sinking, when despair drives out all hope, when enthusiasm gives place to the most depressing forebodings? When the disciples left Calvary, on that Friday afternoon, they walked within a cloud as dark as night. The whole Jewish church had risen up against their Leader. The Roman government had listened to its importunities and decreed his death. The sentence had been executed in the most cruel and ignominious manner. And it cannot be otherwise than that they who put Jesus to death will complete the work in the utter suppression

of his followers if they shall dare to utter a word of criticism. Has not the night come to these disconsolate men and women? Could it be darker? Each heart must be a grave where all hope is buried. Thus there is no room for enthusiasm, no soil in which it can grow.

It is, therefore, indisputable that the story of the resurrection was not an offshoot of enthusiasm, but that the appearance of Christ in such clear and unmistakable manifestations of himself, in the absoluteness of his personal identity, awakened the first germ of hope; and that the ardor and zeal of subsequent years took their rise in that unexpected appearance of the living Christ. No effort has been more unsuccessful than that which would account for the testimony on which Christianity rests as a historic reality by making it to be a fiction of the imagination, a delusion of human enthusiasm. If, therefore, Christ did rise from the dead he was a divine being, and his teachings must be divine. Christianity at first must have been a grand system of truth. Our discussion thus far brings us to this conclusion, that the witnesses from whom the world received the record of the rise of Christianity told the truth without prevarication, for they were both honest and competent. It was the power of truth which led them, against all earthly motives, to give to the world the record as it came from their lips.

3. The original record has been preserved in an uncorrupted form—we have to-day the genuine testimony given to the world more than eighteen centuries ago.

We introduce the consideration of this proposition with the statement that no other ancient documents were ever so well attested. There is no proof wanting that would strengthen the conviction of the identity of these writings with the original. In saying this it must be admitted that we have no original manuscripts in the handwriting of Matthew, John, Paul or Peter; and it may be said that if we could lay our hands on such manuscripts the proof would be greatly increased. Yet it needs but little thought to see that it would be much more difficult to identify such handwriting than to show from other

sources that these documents are identical with the writings in the possession of the early church. If such manuscripts did exist, how could their genuineness be established? It will be borne in mind, however, that we do possess manuscripts coming from different parts of the Old World, belonging to the fourth century, which are identical with the New Testament Scriptures of to-day, so that if any corruption of the record has taken place it must have been previous to that time. This cannot be said of any of the great historical and philosophical writings whose genuineness we fully accept.

What proof would be satisfactory, putting the question beyon a doubt? If sixteen, seventeen and eighteen centuries ago these scriptures were quoted freely by different writers and speakers; if they were quoted by church writers without challenge from their adversaries; if they were quoted by the enemies of the church with no charge of unfairness; if in like manner they were quoted by opposing sects in the church without criticism from any quarter; if the teachings of the New Testament, as we now have them, entered into the literature of those ages, permeating it through and through, and admitted on all hands to be genuine, must not these writings have been in existence in those days? And such are the facts. A chain of historic evidence runs back through eighteen centuries and takes hold upon the events which make up the life, crucifixion and resurrection of Cnrist as embodied in these scriptures. Along the current of history from the very fountain whence Christianity takes its rise, stand the enemies of the gospel and its friends—myriads of eyes—watching its onward flow. Not the slightest diversion could take place unobserved. Its enemies could not corrupt the stream, for here are the eyes of the church. Its friends could not turn new streams of thought and doctrine into the channel, they could not swell the stream from foreign sources, for the infidel hosts would expose the fraud. Christianity was introduced into the world, as has been said, "at the focus of three civilizations—the Roman, the Grecian and the Hebrew"—three civilizations beaming forth in intense light,

and the scrutiny that enclosed it at its origin was never withdrawn until in the literature of all nations it became the common property of the world. If the correctness of the foregoing statement is questioned the doubter has just one work to do. He must show how a fictitious life, called the life of Christ, the unfolding of such a perfect character, could find its way into the literature of the world and the forces that are transforming society. He must show that all this could be a fiction of the imagination interjected into the onflowing current of human affairs, That we have a description of such a life is a demonstration that there was such a life. That Christ lived, and that he was such a person as the evangelists make him to be is distinctly set forth in profane history, which every objector must take to be valid testimony. That there is such a portraiture is indisputable proof of the reality of the subject of the portraiture. Human skill or genius never painted a character on such a model. So widely unlike the ideals which any artist ever conceived, differing on all sides from the heroes held up before men, having this portraiture is a demonstration that there was such a life nineteen hundred years ago.

There was, then, a Christ on the earth at the beginning of these ages. That he was the same Christ now proclaimed in these sacred writings with all the broad claims of superhuman wisdom and power, is shown by the foregoing considerations, and in the fact that at no subsequent period of the world could these claims be supplied and put into his mouth, and the world know nothing of the fraud. Nowhere in all the ages following the time of the crucifixion of Jesus in any history or tradition is it said that such a fraud had been committed. To change Jesus from a human to a divine being, from an ordinary man to a God, thus changing the entire basis of Christianity, and nobody know anything about it, history entirely silent in regard to it—need we discuss a position so insanely absurd?

4. Divine attestation.

In proving that the events narrated in the New Testament did actually occur we are attempting to do more than verify

history. The history, if true, is more than human events, it is a divine revelation, it is an interposition of the supernatural for man's good; it is God setting in operation a wonderful scheme to change the tide of history, and which at last will reconstruct a world. Into this problem and enginery of power there enter prophecy and miracles, truth, such as no system of religion had ever taught, and a marvellous personality, "God manifest in the flesh." In the old Jewish Scriptures there were prophecies from the opening sentences almost up to the close, uttered in every possible form, but misunderstood by the people, yet finally converging into the strange scenes which marked the inauguration of the Christian religion. A great deliverance shall come, it shall come through a certain line, it shall be inaugurated by the birth of a child in Bethlehem, but preceded by a flaming messenger preparing the way. This child, as he grows up, shall work miracles; he shall ride with a shout into Jerusalem, but he shall be hated and rejected by the Jews; he shall be betrayed by his friends, crucified, his garments disposed of by lot, he himself making his grave with the rich, not suffering corruption, but raised from the dead on the third day; with a multitude of other prophecies which have a strange reading and an unexpected and marvellous fulfillment in the person of Jesus Christ.

In the hands of this personage, of whom seers had so fully prophesied, there was the power of miracles. At his word or touch the blind received their sight, the lepers were healed, the storm hushed into silence, the multitudes miraculously fed, the dead raised to life, and he himself breaking the bonds of death which had enwrapped him on the cross, and at last ascending into the heavens. What is prophecy? It is God's voice speaking down through the ages, omniscience foretelling events. It is a light which God hangs in the sky of the future so that we may know that he still cares for men and has some great mission of mercy to work out in the coming years. And what are miracles? They are God's power, not displayed through the ordinary channels of nature, but the power of Jehovah cutting

loose from the chain of material forces, displayed in such a manner that there is no chance to ascribe it to secondary agencies through any appeal to nature's laws. All the movements of the universe are divine, but men are blinded by forces and laws which ought to convince them of the being of a great lawgiver and ruler; so that in a miracle God steps outside of the systems of His ordinary movements and performs acts for which no provision is made in the workshop of nature. Christianity came into existence heralded by the voice of prophecy and bearing in her hands miraculous energies to show her heavenly parentage.

The message of the gospel, the teachings of Christ and His apostles, stand out from the teachings of sages and philosophers incomparably more weighty and transforming. What words of wisdom fell from the lips of the Saviour, and yet how simple and unostentatious! Nothing puerile, all relating to the highest interests of the race. The message of the gospel has saved millions of souls and brought hope to unnumbered despairing hearts. It is the power of God unto salvation to every one that believes. All this the world admits. We need not extend the argument to greater length.

But beyond everything else Christianity is endorsed and glorified in the character and life of Jesus Christ. In the person of Christ the problem centres. We may not say that Jesus was one of the best of men. He must be more than a man or else one of the worst of men. The claims which he put forth could by no means be answered from the plane of the loftiest humanity. Listen as he says, "Behold a greater than Solomon is here." Again, "I and my Father are one." "When the Son of man shall come in his glory, and all the angels with him, then shall he sit on the throne of his glory; and before him shall be gathered all the nations; and he shall separate them one from another as the shepherd separateth the sheep from the goats." In view of the extraordinary pretensions of Christ it is necessary to ask the question, Does his character sustain the claims made? The answer we give is that in no respect does

he fall below these claims. His childhood is the perfect bud; his youth the modest, stainless flower; his manhood the glorious fruit, the joy of all nations. Sinless in his life, with a heart that yearned for the good of all men, cherishing a comprehensiveness of views that reached out beyond Judea, and the Jewish people, taking in the whole world, asserting the lofty supremacy of his being, yet with a modesty compatible with the life of the lowliest of men, carrying forward the grandest mission of all worlds in the face of the opposition of those in whose interests he had sacrificed heaven, yet undisturbed by their folly, as though infinite power was in his hands, and at last hanging on the cross; yet wholly forgetful of self, and with this one burden on his heart that God would forgive his murderers. It was not the life of a Jew and the death of a philosopher; it was the life of the ideal universal man, and the death of the Son of God. Rousseau was not mistaken when he said, "Socrates died like a philosopher, but Jesus Christ like a God." Look where we will in history, in all lands and ages, and we find no one in this great family of man with whom we can compare him. In his coming down to this earth he made history after a heavenly pattern. His footsteps hallowed the ground on which he trod, and his life introduced a force which all that was noble and best in the world without him had failed to supply the family of man. In prophecy his life reaches back to the beginning of the race; in power it took hold of the throne of Omnipotence; in the symmetry of a divine glory it took all perfection up into itself. Is any further evidence needed of the divine origin of Christianity. Infinite power, infinite love, infinite truth the make-up of his being, and infinite salvation as the outflow of that life to the sons of men!

5. It has stood the test of time and the progress of two thousand years of thought.

It is proper that an answer should be given to the question as to whether Christianity has not manifested weakness in the midst of the great forces of human life and the on-moving of the centuries? It has come down through two thousand years of

scrutiny, of the testing of its claims, and during the last few hundred years, of intense thought applied to every interest of the race. Has it been found equal to the work of intellectual mastery over the energies which are concentrated in the civilization of to-day? The world has been making astonishing progress in every avenue of investigation and every domain of thought. Every pagan religion has paled beneath the penetrating gaze of science and the stern reactions of philosophy. Brahmanism has been torn into fragments. Confucianism on its moral side has been found to possess the hopeless weakness of negation, and on its political side to be in league with despotism. Grecian thought, which twenty-five hundred years ago was the glory of the world, long since lost its power and was completely dethroned. But the gospel of Christ to-day towers no less sublimely over all systems of human speculation than when the Nazarene vanquished the scribes and pharisees on the streets of Jerusalem. Ten thousand blows have been struck; all the forces of the ages have been summoned to the attack; skeptical sappers and miners have displayed intense zeal in their work of destruction; from every side the warfare has been waged, and the enginery of power has been massed from every armory of human thought, but not one rout has Christianity suffered, not a single scar has it received, not one dent upon its polished armor. It is not under foot, but it is to-day the vanguard of all progress; and speaking with a voice that awakens the intellectual energies of the race, it stimulates into intense life the forces of all true civilization. Why has not Christianity been stamped out by the progress of the ages? Why does it not sink into contempt as grander themes and more perfect intellectual mastery accompany the on-moving history of the race? Why are not breeches made in the walls enclosing this body of teachings? How is it that the teacher of morals does not condemn it, or the scientist prove it an obstruction, or the statesman show its principles to be an unsafe foundation of government, or the leaders in the physical development of the world condemn it as hostile to the material interests of the race? How is it that

while the thunder of attack is heard in every quarter of the heavens, and the besieging hosts dash onward with the fury of demons not a battery is captured, not a flag is trailed in the dust, but each day the victory is more brilliant than the day before? Christianity as a force in human progress has withstood the penetrating gaze of civilization, it has cheered on the great army of scientists in their work, it has torn the bolts from the doors of the temple of truth. On the religious side it gives life; on the side of science it gives light; for the physical interests of the race its hands are full of blessings, rejoicing only in the enfranchisement of man with every good which intelligent, rational and immortal beings can enjoy. If false or incomplete would not its bulwarks decay, would not something purer, something bringing greater blessings in its hands, something taking hold of human life and interests with greater power to lift the race up to a grander and more successful history, take its place? But one answer can be given—God is in Christianity, its foundations are absolute truth. Hence it is always in advance of civilization. It leads the progress of the world, and is mightiest where that progress is most majestic.

CHAPTER VII.

THE STUDY OF LANGUAGE.

Up to a recent period the greater part of the college curriculum consisted of classical languages—Latin and Greek—and mathematics. In many institutions great changes have been made. The natural sciences have been given a more prominent position; history is coming to be regarded as important and is being largely introduced; and many colleges find a place for the study of great living questions in political and social science, thus connecting these seats of learning directly with practical public interests. The result is that classical languages in many colleges monopolize less time than heretofore, with, it is apprehended, a growing disposition to regard them as unimportant.

Why make language a leading branch of study in a college course?

1. It is the setting of thought.

Language is the expression of mental operations, it is the channel through which the ideas of the world flow. The product of the action of the intellectual faculties is preserved to us in the language of the several nations. Language is the setting of thought because it embodies and perpetuates thought. But in being the medium of thought it is much more than a receptacle; as a bearer of thought it is inwoven with it; our mental life lives in the very structure of language, not exactly identical with it; but language is instinct with the mental movements of the ages. Thus in the study of language we not only come into possession of the means of finding thought, but we discover that it has a thought life in itself, it breathes and speaks to us out of its own being. He who would gain the most favorable conditions for profound, varied and comprehensive thought should become a thorough linguist.

2. It is a key to the treasures of knowledge. How are we to find our way into the mental life of all ages and lands? Almost wholly through the medium of language. Painting has done something, sculpture has done something, but their capabilities are limited. In the books which have been printed, in the manuscripts preserved, in the various publications of the present and the past we find the wealth of human thought. To the uneducated the several languages are like a locked safe. He must get the combination, we must find our way into their interior recesses. A profound linguist will be able to penetrate mines of intellectual treasures of which others are in utter ignorance The various shades of meaning, the depth and scope of meaning, these are not found as the result of superficial study. The significance of a discourse does not depend wholly on the speaker, but almost as largely on the mental powers and scholarship of the auditor. The words spoken are the same to all, but some members of the audience get incomparably more out of them than others. He will seek in vain for the richest

and best thoughts of the ages who does not make himself familiar with the languages in which such thoughts are stored.

3. In language we find the crystalization of the history and progress of knowledge. Language is not a sudden creation, it is a growth. And the growth is not wholly the result of the constructive efforts of the philologist, working only from the standpoint of philology, but of the necessities of thought demanding expression. Back of language are mental operations which because of imperfect channels of unfolding and the restraint of inadequate terms, force other forms of speech into use. The growth of language therefore marks the progress of thought. The genesis of language is a study of great interest not only, but exceedingly instructive. The civilization of a land is commonly judged by the character and extent of the arts employed, but this is not the only standard. The civilization of a people is embodied in its language, thus deepening and expanding with the progress of its cultured intellectual life.

4. Every person in seeking an education should endeavor to gain the largest facility in the expression of thought. We think through language, and the more complete our knowledge of our mother tongue the better it serves as a channel of thought. There are no other mental acquisitions so largely employed by us as language. In conversation, in reading, in business, in correspondence, in authorship, in public discourse, we are dependent on language. We need an extensive vocabulary, and a vocabulary whose significance is thoroughly understood both from the genesis of words and their employment by the best writers and speakers. In the use of speech linguists possess a decided advantage over others. This appears in their ready command of language, precision in the use of terms, and consistency and richness of style. Hence it is common to speak of culture as the result of study of which language forms a large part.

5. The student should seek to obtain a very complete knowledge of his own language. The English tongue is mixed or composite. Dividing it into one hundred parts, there are of

Saxon 60; Latin, including the French, 30; Greek 5; with 5 from a great variety of other sources. Thus it appears that the Saxon and Latin comprise nearly all the words we employ. It is evident that the student must, in order to understand either the genesis or force of our language, gain a a thorough knowledge both of the Anglo-Saxon and the Latin. Most colleges give either no attention or insufficient attention to Anglo-Saxon. This is the woof of English speech. It is true that after the conquest of England by the Normans, in 1066, during the next three hundred years the Romanic element became an integrant part of English speech, and the words thus entering into the language may not be considered as foreign, but as there practically by birthright. Though in their origin they may be distinguished from the Saxon, the two are cemented together in one language as fundamental to the changes that followed. To claim a very discriminating knowledge of the English tongue without the study both of the original Saxon and the Latin must excite surprise.

6. In the study of language, especially the classical languages, the demands made on our faculties result in benefits not otherwise gained. Mathematics cultivates the power of attention and continuousness of application. Natural science the faculty of observation, helping to open the eyes for intelligent vision; while History wisely studied strengthens the memory. One of the most important acquisitions is the capability and habit of accurate and close discrimination, that we may get at the exact meaning and worth of the various objects of cognition. The problem to be solved in getting at the thought contained in a Latin or Greek passage is by no means a simple one. The shades of meaning are often exceedingly delicate. The capabilities of these languages are to be determined, intricacies are to be explored. The thought as cherished two or three thousand years ago is to be found; the mental operations of writers living many ages ago are to be brought to light, and we are to get where we can hear the heart-beats of domestic and national life wholly unlike our own. Can we get back into the

spirit and civilization of those days so as correctly to interpret the same? This can only be done by the most careful study of the languages in which their thoughts and life were embodied. Acuteness of intellect, sharpness of vision, the ability to distinguish minute differences, the habit of insisting upon exact accuracy in everything known or done. All of this is gained in an eminent degree by the study of the ancient languages. Thus we cultivate a fidelity to truth and gain the power of accurate judgment, at least an inclination to seek accuracy in our intellectual operations.

7. The original most fully conveys the thoughts of the speaker and writer. No two languages possess the same capability of conveying the meaning of an author. No translation is wholly accurate, shades of meaning are expressed by one tongue which another cannot convey. And as each language comports with the mental life of the nation using it, such mental life may be put into the language without loss or depletion. But when transferred to other forms of speech, to a language growing up on another soil and out of a somewhat different intellectual life, a degree of inaccuracy is an inevitable result. To know the French people—find your way to the very heart of the French people—you must read French literature in the French language. You can get at the German heart and life only through the German tongue. And you surely can get fully into the intellectual conceptions and spirit and civilization of ancient Greece and Rome but in one way, and that is by penetrating down into the deepest meaning of the Greek and Latin languages. The English is a very expressive and comprehensive tongue. It touches many of the other great languages of the world at many points. It has borrowed its vocabulary from so many sources that a direct relationship has been established with the speech of all lands. But the words thus incorporated may have lost something of their original significance by being forced into the expression of English thought. No one can rightly be said to have gained liberal culture who is not able through the languages of the nations of the present and the past to find his

way to the inner life of the great epochs of history, and the leading civilizations of the world. He is a scholar who need not take knowledge at second hand, but who has access to the fountains of learning and truth. To seek a place among persons of liberal culture without making language a specialty is to reach after the highest good by methods unfitted to secure the result.

CHAPTER VIII.

THE TRUE METHOD OF TEACHING NATURAL SCIENCE.

In the last Year-Book was discussed the old method of teaching the natural sciences, and a promise made that at some future time another paper would be given treating of the true method. Very much is said in our day in regard to the "Inductive Method" of teaching the natural sciences. The term is applied to that particular method which has already been extensively adopted in the teaching of Zoology and is now being extended to the teaching of Botany, Chemistry and Physics. The essential element in that method is the substitution of nature for books, the acquisition of knowledge through a process of discovery analagous to that pursued by the original investigator. As it has become almost the universal if not proper usage to call scientific procedure inductive, by a very natural transference of terms that mode of teaching which attempts to reproduce most closely, in imparting truth, the method employed in its discovery is commonly called the inductive method. But to secure an intelligent discussion of this method it seems necessary to premise that the use of the term is at least of doubtful propriety. No one claims that the procedure of the original investigator is purely inductive. All admit that in the actual work of original discovery deduction and induction, with many other processes which can be included under these only by a very broad definition are all equally

essential. The scientific investigator observes, experiments, interprets, appeals to authority, makes hypotheses, resorts to verification, forms new generalizations, employs old ones deductively, etc., etc.

Now, since the most vital difference between the fruitful method of to-day and the barren method of former times is the extensive employment of induction, it may be very natural, but it is certainly very misleading, to call it the inductive method; and when we come to transfer it to a method of teaching, its propriety becomes still more doubtful.

If the old method has been at all correctly characterized its chief feature was dependence on authority. The new one takes as its maxim the dictum of Bacon, interrogate nature. Here clearly the chief difference is that, while the student in former times had knowledge set before him by his books and teacher, according to the new method he discovers it for himself. So then it will be understood that this paper is devoted to the consideration of that method of teaching science which consists largely, though not exclusively, in guiding the student along the pathway to discovery; or to adopt a formulated topic, we will consider the combined Method of Discovery and Authority. The plan then may be described as a mixture of (1) original investigation, and (2) references to authority. In the beginning of the study of a given science (1) will be a small factor and (2) correspondingly large. As experience in manipulation, observation and interpretation increases, (1) will increase and the necessary dependence on (2) will decrease. To the experienced scientist (1) is very large and (2) very small; in other words he is his own authority.

In such instruction, the first thing necessary is practice in *observation*, and in the use of all his senses for that purpose. As the gymnast, painter or musician gains skill in the use of his muscles by exercise, so the senses are susceptible to training so that the eye of the trained observer sees at once much in an object that other eyes do not see at all. The thoroughly trained scientist must have his powers of observation so trained that

when any object or phenomenon presents itself for study, the sense he possesses springs at once to his aid, so that every property of the object and every phase and circumstance of the phenomenon will be instantly and clearly seen. And this faculty of observation enables us to go very far towards the proper understanding of the facts of some of the sciences. Not a little progress may be made in the study of Zoology, Botany, Mineralogy, Geology and Astronomy by merely observing objects as they are met with in their natural conditions.

But it would be a tedious process and altogether uncertain if one were to wait for opportunities for observations until such time as nature forced them upon him, and hence arises, in the second place, the necessity for *experimentation*. By experiment we may surround the object to be studied by different conditions, forcing nature into restricted channels, eliminating extraneous forces, thus obtaining many views of her workings which could not be realized by mere observation. Some sciences, indeed, must be so studied, if studied at all, for all their theories and laws are made apparent by interrogating nature by the method of experiment. This is especially true of Chemistry and Physics, and in the case of the sciences already mentioned, Zoology, Botany, Mineralogy, very much additional knowledge may be gained by experiment. Happily for the interest of the student, the study of these subjects no longer consists simply of the catalogueing and committing to memory of a list of meaningless names, but under the inspiration and direction which the discussion of the doctrine of evolution has given these sciences the intensely interesting subjects of origin, growth, development and reproduction form an indispensable feature of the study; and in all these experimentation bears an important part.

In the biological sciences *drawing* is an essential feature. The careful tracing of the outlines of a plant or animal compels a concentration of attention and discrimination of details which is very fruitful of good results. These drawings should not be of the artistic but of the scientific character. The first gives

only a general notion of the form, structure and relations of parts; the latter establishes precise measurements and proportions and exact relations; gives attention to number, etc. If, for example, there is made a drawing of a fish with more or less than eleven spines in the dorsal fin, with all the other characteristics of the Rock Bass, (*Ambloplytes rupestris*) for all artistic purposes the drawing would be accurate enough, but the naturalist who should inspect the drawing would be in doubt whether this particular species was meant or not. The diagrammatic drawing is often used, when by this process details and relations of parts may be more clearly portrayed. Copying the illustrations of apparatus in Physics and Chemistry from a book is far in advance of the mere study of these illustrations without copying, but this cannot take the place of the handling and use of the apparatus itself.

Hand in hand with observation should go discipline in describing the objects studied. The effort may cease when the student has gained general ideas and is able to express those ideas in a loose manner in the way of a verbal recitation, but he should be compelled to make the extreme test of his acquirments by reducing that knowledge to writing. Remember that it is the scholar and not the teacher who makes the description and that what he describes he shall first have observed in the natural object. This prepared account of his work should be written according to all the rules of composition and rhetoric, and should be so criticised by the teacher.

How can this method be applied in actual practice? It may be applied with proper modification to any science.

We will take the space simply to show its application to the teaching of chemistry. It is recognized by all teachers that to teach chemistry without experiment gives small value in return for the time and labor spent upon it.

The comparatively slight cost of the material necessary to make many of the experiments described in the ordinary textbook on general chemistry is not appreciated as it ought to be. For a very small outlay indeed, two-thirds of these experiments

can be made. A dozen test tubes, an evaporating dish, a Florence flask, a retort, a little glass and rubber tubing, and a small stock of the ordinary salts and acids, the whole costing but a few dollars, will work such a transformation in the spirit with which a class will carry on its work, as to cause the teacher to feel that though poor as he is, he will have the material for demonstration, if he is obliged to pay for it himself.

A full set of apparatus for chemistry, including graduated glasses, breakers, condensers, decomposing apparatus, batteries, balance, thermometers, eudiometers, blast lamps, rare salts, etc., does cost a comparatively large amount, but these *may* be dispensed with, as desirable as they seem to be.

Who shall conduct the experiments? The teacher may do this while the scholars sit in their seats and look on.

This is a vast improvement over a course with no experiments, still it is a long remove from that intimacy with the truth and the certainty of the knowledge which they will obtain by themselves manipulating chemicals and test-tubes.

If the pupils are to do the work themselves what shall be the character of the experiments? From the standpoint of cost (and unfortunately this is often the governing matter,) it is clear that to provide the necessary duplicates of apparatus and chemicals, only the less costly can be chosen.

This has led me to conclude that to make a working laboratory a possibility in the ordinary school, a laboratory permitting the working of a dozen or more students at the same time, we must seek our laboratory course in the direction of the methods of qualitative analysis.

I have also great faith in these methods as the best available laboratory practice for even those who are beginning in the science, from other considerations than those of mere economy. There is an incompleteness, a lack of connection between the numerous facts presented for study, an absence of any unifying principle in the methods as they are presented in the ordinary elementary text-books that gives the student great

dissatisfaction, leading him to wonder whether there is any system or logical connection anywhere in the subject.

On the other hand there is that completeness, that definiteness, that unity in the methods of qualitative chemistry which appeals to the student at once. Especially will this be so if he is guided so that he sees for himself how this unity may be wrought out and preserved.

These and other considerations have led me to adopt the following as a course most sure to bring good results.

The time sufficient to cover a course in general descriptive chemistry and also lay a foundation for a course in qualitative analysis ought not to be less than two terms of fourteen weeks each. This is time enough.

After a thorough introduction is made to the general text-book and the preliminary definitions and principles are well understood, say three weeks, let the three lessons per week in this line be alternated with two lessons of two hours each in qualitative analysis. This is for the first term. During the second term one lesson in the general text-book will finish that and leave four days for laboratory work.

But now, having our laboratory fitted up, and our time laid out, great care must be taken that the privileges thus gained are not misused. Our methods of using these appliances and conducting the student successfully through his course must be closely scrutinized, for, as Dr. Remsen has truly said, "the average playing with test tubes and precipitates is of questionable benefit. Such having been dignified by the undeserved name of scientific training and put forward in place of the real thing, many thinking men have been led to question the value of scientific training and adhere to the old drill in grammatical forms and mathematical problems.

Laboratory practice, as ordinarily carried on, consists in setting before the student a task to perform, the end of which is known to him as well at the beginning of a series of experiments as at its close. He may see the fact more clearly, but the substance of the truth he knew to begin with, and he very

naturally asks whether the time and labor thus spent could not have been more wisely used in adding other facts to his store of knowledge. Especially is this true when he comes fresh from the study of history or language where he has been trained to regard the printed page as the only authority obtainable.

The object sought after in conducting the student through the usual course in qualitative chemistry by the following somewhat unusual method, is to counteract this tendency to undervalue laboratory work and also to place him as nearly as possible, from the first, under the conditions enjoyed by the original discoverer.

The method may be described as a catechetical one, the student being sent to the laboratory with a question which he is to answer by practical tests, and from these answers to discover some general principle or truth of wide application. An example will make this clear.

The usual method of procedure is to make the statement to the student, or he reads it from his text-book, that the re-agent hydrochloric acid will precipitate lead, silver and mercurous salts, and no other. He seldom doubts this, and acting on his previously acquired habit of regarding the printed statement of some good writer as sufficient authority, he does not see the desirability or necessity of demonstrating it. If he does proceed to investigate the question by practical tests, his work will, in the great majority of cases, consist in making the three precipitates in question and perhaps trying the effect of the re-agent on one or two additional salts. It is clearly to be seen that this is no demonstration whatever. He still takes the major part of the truth on his faith of some one else's statement.

If now he was sent to the laboratory with no hint as to what he was to discover, with the question, How does hydrochloric acid affect salts in solution when added to them? it is clear he could not consider his work as completed nor could he feel competent to pronounce judgment on the subject until he had applied the acid to representative salts of all the more commonly occurring metals. When this was done he would discover for himself

that hydrochloric acid will precipitate lead, silver and mercurous salts, and no other. An easy application of this fact leads him to the use of hydrochloric acid as a re-agent for the separation of the three given metals from all others. He feels himself to be, and is, quite as much the discoverer of this truth as the one who first came into possession of it. Two more questions, viz., How do salts in solution behave in the presence of hydrogen sulphide? and when precipitates are found, how are these affected by dilute acids? leads easily and naturally to the discovery of a method of separation of a second and third group of metals.

The advance work for each day may consist in finding by actual tests in the laboratory, answers to the questions, and making memoranda of all transactions. This is then thoroughly discussed and all legitimate conclusions and truths noted which have been brought to light. Immediately following this discussion the student should write out in full, by direct discourse, so much of the theory and practice of chemical analysis as his work has made clear to him. Thus by a true inductive method will the study grow under his hands and become part and parcel of his own mental equipment.

It will be objected that it is wrong to oblige the student to pursue this work of discovering the truths already well established; that he ought to enter into and take advantage of the fruits of previous toilers and himself push out into fields not yet occupied.

This is very true, but the great defect in the student's training will arise from the fact that his habits, his methods of study and investigation are given him by his first lessons. If his initial lessons do not introduce him to the true scientific method it is doubtful whether he will appreciate it fully when set before him further on in his course.

It will also be objected that this course will take more time than can ordinarily be given to this subject. In answer to this it may be urged that the teacher must not regard time when it weighs against false or true methods; that slowness at the start

only makes progress more rapid when correct habits have been formed. This the writer has found to be true in his trial of the method through several years.

If now we turn to speak very briefly of the good results flowing from such instruction we shall find them neither few nor trivial. Stated broadly, the great result reached is that the student has gained the power to successfully read and interpret nature.

In the meantime his powers and faculties have been drawn out, educated and developed, and not crushed under a mass of merely memorized facts and theories. All his senses have been quickened and wonderfully increased in their power to convey impressions to him from the outside world. The prolonged observation, the drawing, the original description, all tend to increase the student's power of concentration, and this power of fixing the attention is the one essential condition of scholarship in all departments of learning. His judgment has been greatly strengthened. He has received many valuable and lasting language lessons, his vocabulary has been enriched, a versatility in the use of his mother tongue developed for which there is scarcely a substitute.

We may go farther and make the assertion that the imaginative faculties are greatly strengthened and developed by scientific research, and that this is one of the legitimate results of such study. "When speaking of Kepler, whose method of reasoning has been considered as unsafe and fantastic by his contemporaries as well as by later astronomers, Sir David Brewster remarks very truly, 'that as an instrument of research the influence of the imagination has been much overlooked by those who have ventured to give laws to philosophy.' Max Muller, in his 'Science of Language,' says that the torch of imagination is as necessary to him who looks for truth, as the lamp of study; and Tyndall in that remarkable address delivered before the British Association in 1870 on 'The Scientific use of the Imagination,' earnestly bids us to exercise this power, saying that 'without imagination we cannot take a step beyond

the bourne of the mere animal world, perhaps not even to the edge of this one.'"

What teachers fail to keep in mind is this: that learning is not knowledge; but as Lessing says, 'Learning is only our knowledge of the experience of others; knowledge is our own.' No man really comprehends what he himself has not created. Therefore we know nothing of the Universe until we take it to pieces for inspection and rebuild it for our understanding. Nor can one man do this for another; each must do it for himself, and all that one can do to help another is to show him how he himself has morsellated and recomposed his small particular share of concrete nature, and inspire him with those vague but hopeful suggestions of ideas which we call learning, but which are not science."

Delos Fall.

CHAPTER IX.

THE RATIONAL TEACHING OF CHRONOLOGY.

Inability to learn dates is a confession very frequently heard not only from students, but also from teachers, and occasionally even from teachers of history. What is more remarkable, it is not uncommon for people to imagine themselves fair historical students in spite of this inability. Indeed, some would almost give the impression that they are rather proud of it. The learning of dates they fancy is a mere matter of memory, not proving any particular strength of understanding. Perhaps they include in their contempt the whole subject of history; but, if not, if they can see much to merit study in history as a whole, they in any case have no patience with dates. It is therefore a first requisite in teaching chronology to show that there is no such thing as history without dates.

Every event, as such, involves the time element. This is a commonplace needing no demonstration. It is true that events may be abstracted from the time relation; *i. e.*, we may treat

them as universals, classifying and comparing them, just as we classify and compare the facts of physical nature, with the ultimate object of deducing general laws. Yet even when we are subjecting events to the methods of science it must be noted that we do not wholly rid ourselves of the time element. To do so would be to destroy their distinctive character as events. Social science is nothing if not a dynamic science. But the working of every force, whether physical or moral, is under the limitations of time. It is, therefore, only through the accurate knowledge of time relations as the key to casual relations that it is possible to make any inductions whatever from the facts of history. This is the true meaning of the old saying which makes chronology one of the two eyes of history. But there is a far higher sense in which chronology is essential to successful study of social science. The whole historic movement in jurisprudence, politics, economics, etc., is a protest against the extreme abstractness of earlier speculations—an abstractness which made the fruits of such speculation in the highest degree one-sided and unpractical. Nowadays it is demanded of the student of social phenomena, not only that he should go to history for his data, but also that he should become so thoroughly imbued with the history spirit that while his work compels him to wrench facts from their natural environment, yet nevertheless he is all the time conscious of the whole complex past of which those facts are a product.

But we have thus far spoken as if history were nothing other than social science. Yet this is not so. The decisive objection to Professor Seeley's theory of historic method is that, however profitable the particular study, it is not the study of history at all. To carry on comparative investigations with reference to agragrian agitations in the time of Spurius Cassius, or of the Gracchi, or of Parnell, would doubtless be of great value to the student, but it is not history, though it implies a development of historic study greatly advanced. The historian proper is concerned primarily with the life of society and not with the laws which govern that life. By life of course is not meant the mere outer

life. He can not be contented short of the true inner, dynamic, or causal life. But the social forces are not to him of interest in their universal aspect, but rather in their relation to the particular course of the life of a community or of the world. The goal of history is a biography of the race; that of the social philosopher is a system of laws which will enable him at least approximately to prognosticate the future of the race. The historic spirit as such views all effects as parts of a great concrete whole. To this great whole chronology is the framework. If no single event is fully intelligible without a knowledge of the time relation, surely the vast, complex, diversified life of the race can not dispense with that knowledge.

Of course this particular method of presenting the case would not be adapted to impress upon younger pupils the value or significance of chronology. To accomplish this, simpler methods are needed. I have often begun by relating some very startling event, real or fictitious without giving any note of time. When asked if it is satisfactory, the class of course say no. What more do they want? Doubtless they will ask, when did it happen? But this only shows how natural it is to mark the time. To bring out the *necessity* of such time marking, I tell about a supposititious Englishman who defended the South in resorting to rebellion because Lincoln had freed their slaves. When asked for an opinion they of course declare the argument absurd, because the South rebelled before the slaves were freed. If the student fully grasp the principle here involved, he is ready to try to learn dates. I often tell a story from my own experience to illustrate the value of chronology as a key in a different sense. A young man who usually did pretty well in isolated narratives, but almost always failed on dates, came to me finally with the usual remark that though he liked history very much he could never remember dates. Naturally I tried to show him that without dates he was not learning history; but I had no very great success in the undertaking. Not long after, however, he came to me to ask for the most important facts, in the condition of the world about the

time of J. Q. Adams' birth. [He was preparing an oration.] "Well, when was he born?" I said. "Really, I don't know." "How then do you expect to find out what was happening?" It is needless to say that he no longer objects to learning dates.

In this same direction it sometimes helps to illustrate the function of chronology by reference to that of latitude and longitude in geography. As the latter enables us to locate a point on the earth's surface, so the former tells us in what historic neighborhood to look for an event. So again the student may be reminded of the stock methods of locating buried treasure, *i. e.* by telling the seeker to start from a particular tree or other landmark and take so many steps north or south, or what not, and dig. If now we suppose that the student is clear as to the necessity of learning chronology, it is next of importance to show him how an arbitrary system like our own arises. To do this begin by referring to events of the day or two preceding and ask how we will mark the chronology. Doubtless the student will use such expressions as "yesterday" or "day before yesterday," or "a week ago." In all these cases the point from which reckoning is made is clearly the moment of speech. The class can then be led to take a second step by bringing up some less recent event, perhaps from their own lives. Of this they will naturally speak as having taken place the year before they came to their present home, or the year they entered the high school, or what not. Now the point of reference has changed from the present moment to a definite event in the past, but not a fixed or uniform one. A third advance is made when the student, discovering the inevitable inconvenience of using such a system in books or in any form of communication with his fellows, deduces for himself the necessity of choosing a fixed and uniform point from which all agree to reckon. The determination of this point he will see is a purely arbitrary matter, one era being as good as another, if only all agree to it.

If now the student has obtained a clear idea of the function of dates and of the nature of chronology as an instrument for

accomplishing that function, he is already well started; since nothing is more essential in undertaking any task than to realize the value and necessity of that task. This clear apprehension of the function of dates is further important in that it furnishes the principle or key to the proper method of studying or learning chronology. First and last, and always we should remember that dates are means, not ends. They constitute the key to the real, causal relations of events. If we merely secure the arbitrary association of certain statements with certain sets of figures, we can hardly be said to have learned chronology at all. Such knowledge is ours only when we have passed from the set of figures to the facts among which the figures properly interpreted will place us. Not only is this latter the only true chronology, but it is also frequently far easier to acquire than the arbitrarily associated figures. It is therefore of great practical value to accustom the student to give the proximate events rather than the exact date. Even when asking for particular dates the answer should be followed by a question as to the historical neighborhood signified by that date. It is also of value to train the student to give approximate time references; *i. e.*, to indicate merely the position in the century, defining an event as at the beginning, or in the middle, or at the end. Review exercises carried on in this fashion are of great value. Before beginning such an exercise the class should be notified that no figures are wanted. Of course the purpose of all this work is to help the student to get something the same relation to the case that the teacher has. The latter remembers real chronology, not because he commits to memory long lists of dates, but because all history is to him an organic whole, truly one, yet naturally breaking into epochs each of which has so much of individuality that events locate *themselves*, so to speak—epochs in which every event is so interlinked with other events that, though its exact position may not be remembered, its general chronological relations could not be lost, even were one to make a positive effort in that direction.

Thus far we have spoken merely of the general association of events with each other; a very much more important help is the causal association of events. It was said above that dates furnish a key to the inner, dynamic relations of events; it is equally true that a knowledge of these dynamic relations serves as a key to the chronology. Often the easiest way to determine a date is to make an inference from the event itself as to its necessary historical connections. When a student declares himself unable to remember the time of a particular event, he will often be helped by a series of questions which compel him to reason himself into the correct historical neighborhood. Interrogate him as to the relation in time of the event wanted to other events of which he certainly has some knowledge. Continue this process, framing each question so as to narrow more and more the field of possibilities, and presently the student will find that he has argued himself to within a few years it may be of the date wanted.

Here, as everywhere else, the learner should cultivate the habit of appealing more to his understanding and less to his memory. "Use your brains!" is a good exhortation for students who always show the white feather when dates are called for. Thus, then, in teaching chronology we would emphasize the maxim laid down for history teaching in general; "teach the inner, causal, or force history." If this is done, if we emphasize sufficiently the organic connections of a series of events, the student will find himself almost unconsciously learning chronology.

In conclusion it may not be amiss to remark that to be successful in teaching chronology the teacher must himself have fair attainments in that direction. Some instructors give an impression in the class room that they hardly expect dates to be learned, either by themselves or by the student. Of course they are not disappointed. Others set high standards for the student, but themselves are very uncertain unless the book is before them. These will not succeed very well either—but if one shows by his example that the task is not so extraordi-

narily difficult as people are apt to think, it is almost astonishing how many dates can be taught in a very short time.

F. M. Taylor.

CHAPTER X.

RESEARCH CLASSES.

For several years we have offered to elective students at Albion courses similar to the university seminaries but differently named. The designation "Research Classes" has been used from the first as less pretentious than the imported word and as expressing more exactly the character of the work undertaken. For the benefit of those who are not familiar with the "seminary" or "practice course" it may not be out of place to describe somewhat fully the purpose and methods of "research work."

The object of these courses, as commonly understood, is not to master any particular branch of knowledge, but to train the student in the carrying on of detailed investigations, to secure facility and skill in the "working up" of narrowly limited topics. With such an object it is hardly necessary to say that research work should be preceded by thorough grounding in the rudiments of the subject involved, that it should be undertaken only by the most capable, and by such an one only in that department of study for which he has a decided predilection. It should also be remarked with great emphasis that in no other line of work does success depend so much on the personal effort of the student.

In leading a research class the first requisite is to choose the topic, a matter needing some care. First, the subject should be so limited as to make possible its thorough and detailed investigation in the time allotted. Secondly, it should not be so remote from the student's thought life that he can have no real, living interest in studying it. In the third place, the topic should be from the teacher's stand-point comparatively new and

one that he honestly desires to work up, whether for lectures or publication. In this way only can we secure on his part that enthusiasm, that devotion to this work without which it is a dismal failure. For it is to be noted that a fair degree of success is attained with greater ease in the lecture course or the text-book course than in the research class. In the first, indeed, the instructor bears the brunt of the work; but the heaviest of this falls not on the hour with the class but in the days of preparation which precede In the recitation, on the other hand, one gets the work out of the class; and this is not in general very difficult, since the assigning of a definite lesson makes their work analytic rather than synthetic. In research classes, however, the work is constructive, not critical. We are making a text-book, not reading one. Though this is work for the student, he can not be set at it and then left to himself. The instructor must help. Nor can his part be done in the quiet of his study; he must work with the class during the hour of meeting. There is, thus, no chance to take it easy. If the instructor feels lazy, or indifferent, or stupid, he might better adjourn the work to the next meeting. His only chance of success is to be always on the *qui vive*, always enthusiastic, always full of the spirit of work. Such a condition of mind he can hope to bring to the work only when the research undertaken is really serious business to him, differing from his usual procedure only in that he has a band of assistants.

Suppose, now, that a topic has been fixed on, how is the work in detail conducted? Here there is great latitude for difference of procedure. Whatever method is followed, doubtless the student will receive not a little good from the course—a consoling fact to the teacher; for few, probably, have finished a practice course without some sense of dissatisfaction at the retrospect. It is not, perhaps, too much to say that this particular sort of work is yet in an experimental stage. Besides, it is to be noted that the proper method varies with the department of study. A plan very commonly used in this country is to devote the whole time of meeting to hearing the reports of

two or three members with reference to work carried on outside the class during the five or six weeks preceding. This method, I make bold to say, seems to me very defective. If, as frequently happens, the field covered during the term is very extensive, the different topics assigned are often quite remote from each other, so that each member of the class finds himself cultivating his own little patch without deriving any benefit from the work of his fellows or from their meeting together. Consequently, when one reports, the rest listen with ill-concealed weariness to his prolonged disquisition on a subject about which they know little or nothing, and to his frequent references to authorities with which they have hardly a speaking acquaintance. There is thus scarcely any chance for intelligent criticism; since the ignorance of the class, and not seldom of the teacher, altogether precludes this. Further, as each does his real work outside the class, he gets from the instructor only such occasional help as he would if he were preparing for a public debate; *i. e.*, he gets very little guidance, no stimulus from the teacher's example, and no insight into his method. In a word, if the student is already prepared to do independent work, he has no need of the seminary; if, on the other hand, he lacks that preparation, a seminary such as I have described will do very little toward supplying his need.

But criticism is easy. To find a more satisfactory method is the difficult task. Some advantages it is believed are offered by the plan explained in the following paragraphs. According to this scheme it is proposed to treat the whole class as if it were a single individual about to undertake the working up of a thesis on the subject chosen for the term's work. To preserve unity of movement will involve especial care on the part of the instructor; but just as far as possible, every member of the class is to share in every process which the carrying out of the plan involves. To secure this end, and to make the meeting what it purports to be, an opportunity to learn methods rather than to acquire facts, the work, whenever this is feasible, is to be done in the presence of the whole class—each one being

expected to open a window, so to speak, in his mind that his fellows may see the processes going on there.

If this be the general plan adopted, our duty in detail will be to make the procedure of the class approximate as nearly as may be the course taken by the individual investigator. He perhaps usually begins by making a rough working analysis; *i. e.*, he reflects upon the topic till it has broken up into various subordinate topics, leading out into as many lines of inquiry. With the questions thus suggested before him he can enter on the study of authorities with some likelihood of not wasting his time. He now finds out from various sources what books will be likely to help in the answering of his questions; *i. e.*, he devotes a day or two to the bibliography of his subject—not forgetting, by the way, to inquire not merely what the books are, but also something about their relative value as authorities. The third step gets him into real business, *i. e.*, the making of numerous and detailed studies in the directions suggested by the preliminary analysis. In the course of these studies he will find ample occasion to revise the first and second parts of his task. His first analysis will now appear to be very imperfect at points. New questions will suggest themselves; some of the old ones will be seen to be quite irrelevant. In like manner other authorities will be constantly coming into the field. His notions with reference to comparative excellence will be seen to need revision. Some days he will read many pages without finding what he wants; at another time he seems almost by instinct to hit just the passage at the first trial. This process goes on for weeks or even months, till the investigator feels that the subject is fairly within his grasp. He now proceeds to organize the matter accumulated—to analyze his subject, no longer for study but for presentation. In doing this he will doubtless find that further studies must be made; but these are on minor matters and are soon finished. With the completion of his outline, his fifth task, the work of composition, is upon him; and perhaps no part of his work is so much to be dreaded. Here, again, he will find imperfections in his first work which

necessitate going back to do much of it over again. Thus, the five steps enumerated are not always kept distinct, nor taken in just the order named; yet they are, and in general may follow the order given, all more or less clearly present.

If, then, a research class is to follow the course of a bona fide investigator, the work should begin with the preparation of a study analysis in the presence and with the assistance of the class. In this part of the work the students may be still further drilled by having assigned to them for more detailed analysis the main divisions which are isolated at the first meeting—with the understanding, however, that their duty is not to bring in completed analysis but rather to lead the class in making such analysis. The same plan is pursued with regard to bibliography. For the first two or three meetings, the teacher does the work entirely; but, after that, the students are well enough started to bear their share. These two matters, analysis and bibliography, will have to be attended to at each meeting in preparing for the next study. The third kind of work, *i. e.*, the making of studies, like the two preceding it, should be a co-operative process. There should be no carrying on of different studies simultaneously; all should be at work on exactly the same division of the subject at the same time. The actual reading and abstracting of texts can just as well be done outside the class hour, and the assignments made for this purpose should include every member of the class. But the processes of comparing different authorities, of gathering out the points most essential and significant, and of setting these into proper relation to each other and to the whole subject, can be advantageously performed only before the class. The fourth step in research, the summarizing of results, the organizing of our matter on a rational plan, whether for presentation or only for our own satisfaction, is clearly a task for the hour of meeting; and as such it is usually treated. In a certain sense the instructor is the only one prepared to undertake it; but this need not hinder the class from sharing the work with him. The fifth part of the course laid out is not usually undertaken in research classes.

Skill in composition is supposed to have been acquired in exercises prepared for that specific object. Further composition consumes a vast amount of time in what does not seem to be strictly research work. Nevertheless, it is certain that the completion of a thesis as a part of the work would be of great value; since it would insure definiteness, expose mistakes, compel the making of complete studies, etc. Sometime I intend to try carrying the work to this point, either requiring each of the class to prepare an essay on the topic studied or having them write a sort of corporate thesis to be the fruit of the labors of all. *F. M. Taylor.*

PART II.

Scholarship and the Vocations in Life.

CHAPTER I.

EDUCATION AND THE MINISTRY.

What is an adequate preparation for the ministry? Ministers of the gospel are charged with weightier responsibilities than any other class of men. They deal with interests of the very greatest importance. These interests concern every human being; and the obstacles in the way of success are more numerous and more difficult to overcome than such as obstruct the movements in other professions.

A preacher is a proclaimer. This implies that there is a message to deliver. To fill the office of a public teacher qualifications of a superior order are needed. Men of inferior mental capacity should never be chosen to manage affairs in which there is much at stake. On this principle only men of decided intellectual capabilities should be put into the ministry. They should be men of clear discernment, of comprehensive thought, vigorous grasp of truth, possessed of the ability to give clear and forcible expression to the message they are employed to deliver. Decided talent is needed in the pulpit. But "talent in the rough," talent untrained, does not answer the requirements of the place. The work demands mental energies wrought up to the highest degree of efficiency. One of the chief ends of study is the generation of intellectual power, the power successfully to grapple and overcome that which is antagonistic to truth; the power to concentrate thought on the object

of attention, to observe sharply, to discriminate accurately, to reason logically and cogently, to go down into the depths of truth and bring it out to the light. A minister must be a thinker, it must be a natural and easy thing for him to handle truth. He should educate himself therefore for the purpose of developing mental power so that whatever knowledge he may possess can be used to the best advantage. The people will listen to a man of marked intellectual ability as he speaks to them from the pulpit even though there may be some lack of personal polish. We are always impressed by the majesty of thought.

But a preacher is a teacher. It is his office to instruct the people. He is out of his place in the ministry if he is unable to throw the light of truth along the pathway of men traveling through this world of ignorance and moral darkness. There is only one way to persuade men to choose the path of wisdom. It cannot be done by physical agencies, simply by a resort to methods which are physically demonstrative; it cannot be done by an appeal to the emotions—working only on the sensibilities. There is but one thing which, under the guidance and inspiration of the spirit, will break down the kingdom of satan, and that is truth. It is the truth that makes men free. He who comes before his people with an all-absorbing conviction of the value of truth, he himself living at the very heart of truth, his whole soul aglow with great thoughts, and burning to give expression to the same, will build up his congregation into a life that is deep and stable; there will be wrought out a moral manhood that is fortified against the attacks of error and vice. That sermon is the best and will accomplish the most that has the largest amount of truth packed in it, and is so delivered that this truth is seen most clearly and its value is most completely unfolded to the people. Homiletics furnishes us with the least valuable portion of ministerial preparation, that which is worth a hundred fold more is power of thought and comprehensive grasp of truth.

The principles just stated show the need of scholarship.

Certainly scholarship less than that which can be gained by pursuing a college course leaves the minister weak where he needs so much to be strong. And in these days, when every congregation contains learned men, when, through colleges and the press, the people are becoming educated, he who attempts to be a leader of thought as a public teacher must make careful and extensive preparation before taking upon himself the important duties of an expounder of truth. To preach such sermons as the Great Head of the church has a right to demand the minister must be a learned man. To preach such sermons as will meet the wants of this intelligent age requires profound and varied scholarship. To keep in advance of the times after entering the ministry there must be a broad foundation, such as is acquired in college, before the exacting duties of the pastorate are assumed. To render the Master the largest measure of services as his ambassador, no young man may rush into the ministry without previously having taken years of time in study as preparatory to the same.

That a preacher of the gospel should seek an intimate knowledge of the bible from which the message of salvation must be drawn—that he should understand the terms of his mission to dying men, needs no argument. It is of the first importance that he be a profound biblical scholar. But a knowledge of the Bible is not all the knowledge he should possess. The author of the Bible is the Author of nature; his hand is seen in history; and notwithstanding all the machinations of men he sets bounds to human schemes so that his voice is heard above all the wild storm of human passions and strifes, saying, "No farther shalt thou go." There is a divine environment around all the history of this world. All forms of truth agree in a unit that we may not attempt to dissolve. He is not well equipped for the ministry, especially in these times, who is not at home almost anywhere in God's mighty universe of truth. He should be able to see the working out of divine purposes in the current of history coming down through all the ages. The same God that spoke from Sinai had his hand on nature when the con-

tinents were formed, when the bed of the sea was laid, and when life was introduced on the earth. The Bible has its garden of Eden, and Geology should find the birth-hour of the race. The morning stars sang together when Christ came to introduce a new tide in human history, and these were the same stars which the Creator spoke into being at the birth of time. This is a period of extraordinary activity in the wide field of the physical sciences. In all our schools and colleges, as the result of the labor of scientific associations and of individual men eager to solve the problems of creation, and through the publicity given to discoveries by the press and the platform, the people are brought to understand the principles of science and comprehend the great systems of law and truth of which nature consists. The bearing of these physical realities on the teachings of the Bible is rightly understood by some and misunderstood by others. Are preachers of truth fitted to be leaders of thought, do they adequately fill the position of instructors of the people unless their scholarship is sufficiently broad and thorough to enable them to put the book of nature and the book of revelation into one volume and establish the unity of the two? Philosophy is the explanation of contingent realities. The minister who cannot show that reason is not satisfied with anything less than an Infinite First Cause for this dependent universe is ignorant in regard to the most fundamental principles of divine government.

But is it not true that only a small part of that which is learned in college can be used in the pulpit? This question, which is often asked, rests upon a mistaken notion of the purpose and benefits of college training. These higher institutions of learning have not been founded in the interest of general intelligence. The secular and religious press do this work. Colleges have been founded for the training of intellectual powers; they are places where the ability to think is gained; not where men become learned so much as acquiring the power to become learned, and where they are guided in the wisest methods of securing knowledge. Mathematics trains the attention

and assists in developing the power of continuous application. Science cultivates the power of observation, opening the eyes to see—not things—but the relations of things, to find the links which bind nature into great systems of thought. Through history we do much more than trace the rise and fall of nations and civilizations; we study man as a being of intellect and heart and will, reading between the lines the philosophy of life under the control of unrighteous ambition working ruin everywhere, and the philosophy of life when pure and God-like principles are in the ascendency. He who studies history aright develops that sharp discrimination of powers which finds in it manifold more than appears on the printed page. Language, this is the setting of thought; the medium of expression of thought; much more than this, it is a condition of thought. Without language not only would all thoughts perish and civilization be impossible, as there would be no storehouse from which we could draw, but the mind itself would be almost powerless in its search for knowledge. The reasons for the study of language are nearly numberless. We employ it for the communication of thought and information. We draw our knowledge from language which holds it. It preserves knowledge in the world. Our comprehension of truth depends on the completeness of our knowledge of the meaning of language which conveys truth to us. The study of language sharply disciplines the mind while it richly supplies it with material to be employed as the instrument of thought. Four or six years, devoted with close application to the work prescribed in a college course, must give to the young man preparing for the ministry a capacity for thought, an interest in truth, a broad outlook into God's mighty domain, a mastery of language and, in a multitude of ways, a command of resources which he who rushes into the ministry with less of study can never secure.

CHAPTER II.

EDUCATION AND THE LEGAL PROFESSION.

The profession of the law is always spoken of as a learned profession. It shares this distinction specially with the ministry and the medical profession. No one will dispute the statement that eminence as a lawyer can be gained only by careful and extensive study of the principles of law. This is not a a profession in which the public can be largely deceived by charlatanism. In the lower courts, where the best legal talent is never seen, the mountebank may have some influence, but empiricism never rises to a higher level. To become distinguished at the bar a person must be an earnest and lifelong student. He must be familiar with the principles and body of the common law. He must be acquainted with the statutes of his own state, and largely of the country where he lives. His reading must reach out to other civilized lands. To understand the legal codes of his own country fully, they must be studied in their relations to the principles embodied in the laws of other nations. It is necessary for him not only to have the decisions of the higher courts in his library, but his legal mental stores must be a reflex of the interpretations and applications of law therein contained. His mind must be a comprehensive well-arranged repertory of law.

But what preparation does a young man need to enter on the study of law as a profession? If he is willing to occupy the lowest position in the profession he may begin with no preparation whatever. But to take his place in the front rank of jurists he must lay a foundation in scholarship and mental discipline as complete as can be gained. It is evident that there is a large body of history containing the events, the struggles, the progress, the testing of different forms of government, the statesmanship, and the application of unlike codes affecting human interests, through which great principles of law have come to the surface and been embodied in statutes and judicial decisions

or governmental policies, with which every lawyer must gain an acquaintance, if he would handle with the mightiest force the weapons of his profession. It is also evident that the lawyer, whether an advocate or judge, has a decided advantage just so far as he is familiar with the history of the race on which our present civilization rests, or out of which it has grown. Surely nothing can be more profitable or vitally important than the study of constitutional history. The constitutional growth of nations, the progressive building up of their systems of jurisprudence, the rights and limitations of governments, the adjustments of civil relations, in short the forms, spirit and crystallization of policies, in these things we find the roots of the statesmanship, the national life and jurisprudence of to-day. The lawyer who does not go down below the surface of the statutes and law forms which he employs is drinking from a shallow stream. But history is broader than this. It is man's mental life written on the ages—man as an individual, man in the family or home, man in the broader social relations, man environed by civil law, man as a lawmaker, man fired with ambition, trampling on rights and breaking through all restraints, man influenced by opposing philosophies and opposing religions. To interpret and administer law relating and applied to such a being as this in the conscious presence of all the struggles of the ages of the past, makes the legal profession a grander arena of thought than he can find whose knowledge is confined to the law books alone over which he has been poring to get his preparation for the profession.

The lawyer as an advocate must address and seek to influence men. His success, aside from his knowledge of law, must depend principally on two things, namely, his intellectual qualifications, and his skill in the use of language. There is no profession in which mental greatness has a better field than in the practice of law. There is needed the sharpest penetration, the most acute powers of discrimination, with the capability of unraveling the most tangled web of events. There should be clear faculties of perception, strong and accurate powers of logic,

the ability to grasp the great underlying principles of law, together with an imagination that is broadly and grandly constructive. The lawyer should be a sharp observer, a keen student of human nature, and profoundly versed in the science of mind. Now how can all of this be secured? It can only be gained by the wisest methods of study, and the closest application of intellectual energies for a long period of time, to the problems of knowledge. After entering the profession numberless occasions for the interruption of consecutive thought are sure to arise. The discipline of powers should largely be gained before professional life begins. It is immensely for the advantage of men who propose to pursue the legal profession to give a few years uninterruptedly to the work of generating power and training their intellectual faculties. They need this for two reasons. One of these reasons is found in the eminently intellectual character of the profession of law, in which success is purely a mental achievement. The other is that in the practice of law the way is stoutly contested by opposing counsel in behalf of opposing interests. If the lawyer had to do only with the application of principles of law, there would be less obstacles in his way; but he must measure arms with men, shrewd, strong, learned, determined men. Thus he has a double battle to fight, and he who rushes into the contest with less of intellectual power than he might command is but courting defeat. There is but one way to acquire strength, and that is to develop it by the vigorous and continuous employment of the faculties we would make mighty.

The other qualification much needed by the lawyer is a mastery of speech. Language is the instrument he must employ. To impress his mental life on others, the jury or the court, he has no alternative; it must be done through speech. He should possess an extensive vocabulary. And his knowledge of words should be much more than a surface knowledge. Language has a history, it is a growth, the product of past generations of thought, its meaning growing out of the mental necessities of the people who produced or used the words which have come

down to us, and have found a place in our mother tongue. The philological resources of our language must be thoroughly studied by him who would be a master of speech. Thus in the combat may he handle a mightier sword. In the use of language will there be greater ease, a richer diction and a broader sweep of thought.

The imagery with which thought is clothed comes within the scope of Rhetoric. The source of this imagery lies back of Rhetoric in the depths of the intellectual life, but the correct and effective expression of the mental imagery is dependent on rhetorical principles. A lawyer cannot afford to blunder in the use of figures of speech; and out of an intimate familiarity with these forms of expression or principles involved, there is a reflex action tending to enrich thought.

In the practice of his profession the lawyer finds himself brought into relations with nearly every department of science. Litigation has to do with the material world. A man needs to be thoroughly posted in natural science; he cannot afford to be in ignorance of the principles of science which hold this earth in their grasp. The same remark may be made of the social problems which arise in the relations of man with man, which underlie constitutions of states, which give a basis for legislation, which guide in the interpretations of law, and out of which, if it is ever reached, must come the perfect civilization of the world. He who enters the profession of law with limited scholarship and meager intellectual training, is making a sacrifice which no man can afford to make; he consents to take the second or third place in this noble profession; when he owes it to himself, his family and the world that he rise to the highest plane of intelligent manhood to which his powers thoroughly cultivated would carry him.

CHAPTER III.

EDUCATION AND THE MEDICAL PROFESSION.

There is no more sacred calling than that of the healing

profession. The physician holds human lives in his hands. Mistakes may be fatal, and probably are sometimes fatal. Of the greatest importance to us are life and health. We run no other risks so great as when under the treatment of an incompetent physician. We put no other interests of so much value into the hands of any person. It is rarely true that, except in medical treatment, we wholly surrender control, suspend personal judgment, putting ourselves at the mercy of another. The minister of the gospel seeks to guide us in spiritual affairs, which are even of more vital moment than the health of the body, but he does not ask us to suspend judgment—he takes no such responsibility—he works through our judgment, accomplishing the most when our judgment is the most enlightened, when we most intelligently employ the intellectual faculties, asserting and using all the powers of our personality. The man morally sick is cured by an intelligent personal rising to the demands of truth; the man physically sick by surrendering his case into the hands of a third party. A physician will take a serious case of illness only as the patient grants unquestioning obedience to his directions. This being true, the medical profession should be filled by men and women of the highest possible qualifications for the service they undertake to render.

The remark just made is enforced by the further fact that the profession, to reach the largest measure of success, must overcome obstacles more difficult to surmount than are found in the way of any other class of men. He who would repair a watch may take it in pieces to find the defect. A physician cannot employ this method of diagnosis. A lawyer has his whole case before him; there is the law that has been broken, the crime that has been committed. The point of infraction is plain—no difficulty in the diagnosis. The physician, however, cannot ordinarily or frequently get at the seat of the disease. It is hidden from sight. The most he can do is to find what he calls symptoms, which do by no means invariably guide him to the disease. There are other occult conditions which compel the

physician to work in the dark. Physical constitutions vary; there may be inherited tendencies which for a long time lie concealed; seeds of disease may be lurking in some portion of the body impairing the health in a way impossible to determine. But, without multiplying words, it is sufficient to say that the "patient" side of the medical profession is so variable—so obscurely variable—that the keenest insight cannot always locate or quantify the malady to be treated; and, if it could, there may be diseases so at cross purposes that remedies are powerless for good. Therefore, if education can bring any light to the physician it should be sought with the most eager interest.

He who practices the healing art should surely be a most discriminating observer and acute reasoner. He should train himself to detect the slightest modification in everything that comes under his notice. This power, trained to the fullest extent and applied in his profession, specialized in his practice, is a necessary qualification for success. This leads to the remark that the physician should be a profound and most industrious student in everything pertaining to his calling—a student of books, a student of cases.

But can he profitably seek for special training before entering on his professional career? He should gain studious habits. This is one of the main objects of a college course. A few years devoted to continuous study, with no distracting cares of business, the sole work being the mastery of the branches pursued, is the most effective method of developing an aptitude for and tendency to intellectual pursuits.

There are two fields of study in which the medical practitioner should be perfectly at home. One is human life—body and soul—and the other, that portion of the physical world on which he must depend for remedies in the sick room. That he should be a skillful anatomist is evident at first sight. He needs to know all about the body it is possible to understand, including pathology and hygiene. But there is much more than this; he ought to be theoretically and practically a

psychologist. That the functions of the body are to a considerable extent, and often very largely, dependent on the condition of the mind is unquestionable. He who thinks of engaging in the practice of medicine should make the study of mind a specialty—not as many students pursue it, but exhaustively, as a science and with a very wide application to bodily conditions, both in health and disease. Mental states may either neutralize medicines, or, on the other hand, greatly intensify their effect. Often it is the mind only that should be ministered to. Insanity and melancholia are only mental disorders, and everybody would say they require mental treatment. The physician who does not understand the relations of these afflictions to certain faculties of the intellect, who does not closely distinguish between the normal and abnormal action of such faculties, is criminally ignorant of the principles which belong to one very important part of medical science. It must not be supposed, however, that the connection of mental and medical science is found only in these special and extreme forms of disorder. The mind through the nervous system exists very largely in relations with the body, and there is a great variety of diseases which may be influenced favorably or unfavorably by mental conditions. Indeed do not the spirits, hopeful, cheerful, or depressed, enter very generally into the problem of health? It would seem that the mental state is a primary factor in the tone and energy of the physical life, supporting and stimulating the vital force on which everything depends, or weakening its power. The physician who is ignorant of psychological principles and forces is surely not more than half educated, and is not well fitted for his calling.

For the skillful practice of medicine we need to secure a thorough knowledge of remedies. This can be obtained only by careful study of chemistry and botany, a much more thorough study than many are disposed to give to these branches. They should be prosecuted before professional work is undertaken, and kept up through life. The best advantages offered by colleges should be sought. The mere reading of

text-books will not answer. Chemistry should be studied in the laboratory with every appliance for analysis until skill in making determinations is secured; this to be followed by careful and continuous researches. With the physician botany should mean more than the analysis and classification of plants. The vegetable kingdom is a laboratory in which nature elaborates compounds containing remedial properties for a multitude of diseases to which flesh is heir. He who intends to offer his services for the healing of the sick needs to gain a very intimate acquaintance with nature. With beaker and crucible and microscope he should put a thousand questions to nature, pressing these questions until a satisfactory answer in given. And evidently biology, which is coming to occupy so prominent a place in college work, is of the first importance. Surely a physician should be a scientist.

The scholarship which a young man or woman may now gain in college, especially since the principle of election has been adopted, affords a rational preparation for the medical profession. With mathematics for one mode of training, the languages for the special culture and scholarship they provide, history with its stores of information which fits the individual for intelligent citizenship while he pursues his professional life; the physical sciences from inanimate nature up through the animal world to man; psychology, the science of that which is the crowning glory of the human race, mind acting through the body and fundamentally affecting its functions; a foundation can and ought to be laid for successful mastery of the healing art. There are two motives that ought powerfully to stimulate to the most careful and comprehensive study in preparation for the medical profession. One of these is the wants of the public interests of the highest moment—the health and the life of the people. The other is personal, the position or eminence it is possible to gain in the profession. Individual success and the best service rendered the public are jointly secured growing out of the rational and comprehensive scholarship gained.

CHAPTER IV.

EDUCATION AND THE TEACHER'S PROFESSION.

The machinery of education in every civilized country is always varied and complex. Instruction begins at home, as a part of home life. In the natural order of things the parent is the teacher. It is a large part of his work to impart information to the child, to guide him in the employment of his energies during the years of his inexperience, make known unto him the avenues of personal effort, and lead him to make preparation for the activities and duties of maturer years. In these days that knowledge which is called scholarship is gained mostly from books. Many parents supervise the studies of their children for a considerable period of time, but the demands made by business and society impose a limit to the work of the home schools, and it becomes necessary to make other provision or leave the young in comparative ignorance.

The platform and the pulpit, especially the latter, fill an important place in public education. Though the ministry is devoted to one special work, the unfolding of truth necessarily takes a wide range, and contributes very largely to the enlightenment of the people. The platform is used principally for the discussion of special themes relating to nearly every great interest of the race—in literature, history, political science, social science, manners, nature, and thus on through an interminable list.

The work of general information is done mostly by the press. The newspaper supplies us with the record of current events; the magazine gives us more elaborate discussions of questions deemed important, while the most exhaustive treatment of subjects which are believed to be worthy of permanent form is found in book publications. But these agencies all combined do not cover the whole field of instruction. For thousands of years it has been apparent that the needs of scholarship can by no means be fully met without the organic unit known

as the school. This has given rise to the teachers' profession.

The teacher, as the word is technically employed, is a person whose office is to give instruction in what is designated a school, of lower or higher grade. What preparation does he need? Our answer will be confined purely to the question of scholarship. It is evident that to impart instruction the teacher must possess knowledge. The least that can be demanded is that he shall thoroughly understand what he attempts to teach. The claim is not met when by industry the teacher is a little in advance of his class. He who does not understand the whole subject before he enters upon the teaching of the first lesson in the same has no right to undertake the work. This statement is not intended to relieve from daily study of the several lessons taught. The teacher should always go into his class room with that perfect familiarity with the lesson which grows out of immediate and painstaking attention to the same; and however well he has studied the subject before, he should endeavor to add to his scholarship for each time he appears before his class. All this requires thorough scholarship at the outset, and progressive scholarship every day of his life.

The foregoing statement naturally leads to the remark that the teacher needs, and must have, if he does his work well, extensive scholarship. His range of studies must be much broader than the actual range of instruction imparted. Take almost any branch of science. Nature is a unit. No one branch stands by itself, but extends into, and has to do with, every other portion of nature's domain. In geology is found mineralogy, and chemistry and meteorology. Botany and natural history, even astronomy, has its chemistry. The spectroscope takes the place of the crucible, and the constituent elements of the stars are accurately determined, an acquisition in science of which Newton never dreamed. To teach any one science with any degree of intelligence a half-dozen other sciences must be understood.

Look in another direction. How much is involved in a preparation to teach our own mother tongue? Grammar, surely,

and rhetoric. Is this all? What is the English language? In its vocabulary it comes from the Anglo-Saxon, the Latin, the Greek, and several other sources. A knowledge of these languages must be gained in order to secure a preparation to impart to the student a knowledge he has a right to demand. Also the whole subject of transitional English is rich in material for a mastery of our tongue as spoken to-day. Historically, idiomatically, philologically, the field of study is almost without limit; and he whose knowledge is only on the surface is poorly qualified to lead the English student into the avenues of linguistic scholarship. Similar illustrations could be drawn from almost every department of study as pursued in our schools. The knowledge of the teacher, therefore, should be thorough, and his scholarship broad and comprehensive.

Another acquisition the teacher must gain if he would secure eminent success. We refer to scholarly tastes and habits. Finding study a delight—not reading, simply, which may be a mental dissipation—but mental research, digging down into the depths of truth, a love of intellectual work because it brings the mind into contact with thought, and enriches it with the fruit of scholarship, a life like this having a charm in it and preferred to any other life, this the teacher must have if he would awaken in his school an enthusiasm for study. He who does intellectual work only because his profession requires it, can never more than half fill the position he holds. If a teacher, he must be at home in the great world of thought. He must love to dwell there more than anywhere else. The inclination to study must be so strong that the life flows in that channel as though by an irresistible power of attraction. This implies a positive love of truth, a high appreciation of truth, a conviction that it is of inestimable value. The teacher needs to feel, I am bringing the pupil that which is of inestimable worth; it is of so much worth he cannot afford to be without it. With it money, social privileges or pleasures, anything of a temporal nature, bears no comparison. This will not only inspire earnestness in the work done, but it will be a channel through which the life

of the teacher will flow to the heart of the pupil and implant therein an enthusiasm for learning.

In the life of a successful teacher there is one other factor —a true estimate of the worth of the mind which is being taught. We judge of the dignity of any vocation by the kind of energy employed to carry it forward, and the value of the object on which the work is bestowed. If great merit attaches to the subject and object, both, the dignity is gauged in accordance therewith. For nearly twenty-five hundred years the world has been paying honor to the great sculptor, Phidias. And why? He was able to see in the rough marble what others failed to see, wonderful forms of beauty, that which realized the highest ideal of perfection. Harmony, which melted into consummate grace or rose into the loftiest conceptions of the sublime, was always just on the edge of that chisel which transformed the marble block into that upon which the ages have gazed in rapt wonder. Sculpture is an art which takes rank second to no other, for on one side of the chisel was Phidias, and on the other the perfection of art which has delighted the world. We see in the statue finished by his hand the gleam of his own intellectual life, the reflection of a genius which alights upon the world but once in a thousand years. But the marble is lifeless still. The gold or the ivory has no throbbing heart, no outreaching ambition, no purpose to work out into sublime destiny. But the teacher is at work in a richer field than the sculptor has ever entered. He fashions not brass or gold, or ivory or marble. He deals with the energies of thought, the heart of humanity, and the power of will that presides in regal majesty over this world. His task is to make thinkers, to guide minds made in God's image into channels of truth ; to inspire to effort out of which will come perfection of thought and heart and will, and hence of character and life immeasurably superior to the work of the most skillful sculptor or painter.

To fill his position most completely the teacher should be so fully acquainted with the literature of the day that he can wisely guide the reading of the young. The mental life of the pupil

is not formed wholly from his text-books. In these days every young person devotes considerable attention to reading. This is sometimes beneficial, at other times harmful. There is scarcely any peril greater than that which grows out of familiarity with vicious literature. And much of the literature that is not morally poisonous is relaxing to the energies of thought, and unfits for great intellectual achievements. Reading that is carried forward merely for entertainment, with no intellectual aim, is a positive damage. If the teacher could put the pupil in the way of finding and choosing literature fitted to improve his style of composition, elevate his thoughts, give him a taste for scholarship, and develop strength and nobleness of character, the good accomplished would be of incalculable value. In preparing for the teacher's profession the scholarship necessary to do this work should be regarded as of great importance.

CHAPTER V.

EDUCATION AND THE LABORING CLASSES.

Money-making is not the end for which life is given. Its purpose is the supply of material for physical support, and to provide means to meet the demands of our social, intellectual and moral nature. The man who limits his ambition to the acquisition of wealth makes an utter failure of life. Not one object God had in view in his creation is reached by him. He could be dropped out of being without affecting any of the schemes of Omnipotence. He is a cipher in God's kingdom. The word success is often made synonomous with the acquisition of property, while not unfrequently there is no connection of one with the other. It is not the gaining of material possessions that makes success, but the rational use of the same. Hence money-making should never be treated, or labored for, as a final good, but it may be carried forward with a desire for large acquisitions to accomplish important results therewith.

The development of material resources can be secured only by observance of the laws of nature which underlie the production of capital. The whole subject is embraced in Paul's statement that "whatsoever a man soweth that shall he reap." The means must be employed which involve the wise use of the forces of nature. An intelligent farmer is one who uses the most successful methods in agriculture, and understands the laws of nature which make such methods successful. He sees the reason for everything he does. There is no other department of industry requiring a wider range of knowledge, and a more rational or scientific insight into the principles and forces of the material world than farming. Mechanical arts are simple. Skill in accomplishing the composition and resolution of forces is usually all that is needed. But in agriculture there should be a study of chemistry as related to the soil, the plant, the atmosphere, the fertilizer, the principles involved in the generation of the vegetable world out of the mineral, and the conversion of vegetable products into the animal tissue. There is a large number of questions which can be answered only by an appeal to meteorology. Even the mechanical operations on the farm very largely rest back on principles of science. How can the evils of excess of rain and lack of rain be averted? What are the laws and forces of nature which we can call to our aid when such conditions arise? Why, in some cases, is it more profitable to raise grain, and in other cases to raise stock? Why and how can rotation of crops add to the productiveness of a farm? But, without illustrating this subject at greater length, it is evident that agriculture is much more than an art; it involves scientific principles which must be observed, whether understood or not; and can the farmer afford to work in the dark? The foregoing discussion, with a chain of details, applies to every form of manual industry, in manufactures, in general mechanic arts and commerce of all kinds; that is, every branch of industry is under law which must be observed in order to develop capital. It is not alone in the legal profession that we need to understand law. In all our appeals to nature we find there is held

up before us a great code of laws which we must keep if we would gain success.

But the foregoing discussion does not bring out the main interests involved. The manhood is more than money. It is more than the industries pursued. He who prides himself on his wealth, who assumes superiority over others because of his wealth, puts a low estimate on his manhood. If wealth is the principal thing, then the individual must be of exceedingly small value. And having said this much, we wish to add that there is no portion of the population of this country more entitled to an education, or more needing an education, than the great industrial classes. The state is making a mistake when it holds out special inducements to young men and women to enter the professions. Less than one-half of the lawyers and physicians could meet all the proper demands in their respective professions. Hence, in every way, it would be better for the country if the number were reduced one-half, at least. If discrimination is proper to be made, it should be in favor of those entering industrial pursuits.

As the industrial classes comprise a very large majority of our population, they should exert the greatest influence over all the interests in any way pertaining to the public. From these classes should come the greater part of our legislators, our governors, and presidents—of all who have to do with civil affairs. The judgment of farmers, mechanics, merchants and manufacturers on matters pertaining to the well-being of the community should be as eagerly sought as that which any profession is able to supply. But this can only be when their education is as comprehensive as that which is common to the professions. Public concerns should be much more largely in the hands of laboring men than at present. This can be secured only through the prevalence of a greater interest in learning. And, as many preparing for the professions pursue courses of study in college, getting the benefit of culture gained in liberal scholarship, the same must be done by the laboring classes. We need college graduates on the farm, in the store, in the work-

shop, wherever the human hand is employed. This is not needed by the industries so much, as that manhood may come up to a higher level, and the yeomen of the land may shape and govern its affairs. *Men* everywhere, men and women educated up to the lofty plane the Creator intended us to occupy, this is what the world needs. To affirm that it does not pay for the farmer's son to go through college is to depreciate his manhood, and affix more value to farm products than to the power of thought and the knowledge which fits a human being to be a leader in the great interests of society and the state.

To develop the mind the same culture is required, whatever profession or pursuit may be followed. The languages, mathematics, science, history, psychology—these lines of study not only present unlike treasures to the student, but are somewhat diverse in their modes of development of the intellectual faculties. The fullest culture cannot be secured from exclusive application to a single line of study or research. The languages awaken mental energies in a mode quite different from mathematics. History and psychology do not afford the same training. In natural science we gaze upon the outer world, we deal with problems through the medium of the senses; in mental science we look within, the senses are not employed, we gaze upon the spiritual. Some persons find it easy to distinguish and analyze natural objects, but meet with indifferent success in tracing out and assigning proper value to that which is mental. Symmetrical culture can be secured only by an earnest survey of the great sphere of truth which, for its completeness, gathers its material from the unlike realms of knowledge. As the industrial classes gain scholarship, so will they obtain power which will be felt in every department of life. They owe it to themselves, they owe it to society, they owe it to the state, that the civilization which has its home in their lives shall not be less potent or less progressive than the learning embodied in any of the professions.

PART III.

Appliances and Work at Albion College.

CHAPTER I.

LOCATION, BUILDINGS, RESOURCES, AND EARLY HISTORY.

Albion College is located in Albion, a thriving city in the central portion of the Peninsular State. The facilities of communication are all that could be desired. The Michigan Central Railroad and the Lansing Division of the Lake Shore & Michigan Southern Railroad connect it with all the principal routes of travel.

The College Campus contains about fifteen acres of ground in the eastern part of the city of Albion, and comprises an eminence beautiful by nature, which has been made more attractive by art. On the Campus, and facing the west, stand the three main buildings, built of brick and stuccoed. The central building is 40 x 100 feet, and is four stories high. It is devoted principally to the Conservatory of Music and the Department of Natural Science. It contains also one of the Society Halls. The other two buildings are each 46 x 80 feet, and three stories high. One of these is the Chapel and Library building, which also contains the Business Office and President's Room. The other building is divided up into Lecture and Recitation Rooms, containing in addition the halls of the two College Literary Societies and the Art Studio. On the Campus, also, stands the Astronomical Observatory, which is admirably equipped.

In 1843 the Wesleyan Seminary was opened in Albion. A few years later its charter was so amended as to give it the powers and immunities of a Female College. February 15th, 1861, the charter of that which had been Albion Female College and Wesleyan Seminary was amended, and Albion College was founded with full collegiate powers, admitting ladies and gentlemen to equal privileges, equal duties and equal honors. Under these charters much useful work has been done. As a Seminary the institution enjoyed a large patronage, and aided in preparing many young men and women for the active work of life. As the graded and high schools of the state were projected, and came to perform more and more the academic work of the State, the functions and powers of the institution were enlarged, and a Female College was organized and continued in operation for several years. The success of this College for ladies created the conviction that an institution resting on a broader basis, and educating the young of both sexes, would accomplish more good in the wide field to be occupied, and the results have fully justified the anticipations cherished.

For the means of prosecuting its work, the institution depends upon the income from its productive funds, and an incidental fee of $5 per term received from each student. There is no tuition, except for instruction in music and painting. The endowment fund is in the hands of an Endowment Fund Committee, which exists in pursuance of a special State Statute, said committee being authorized by law to pay over to the Trustees of the College only the interest of the fund they control.

CHAPTER II.

RANGE AND RELATION OF WORK.

The curriculum of college studies of half a century ago has undergone, in many institutions, very extensive modifications; and those schools that adhere rigidly to the past are suffering

in comparison with the class referred to. The ancient regime restricted the lines of study almost wholly to Latin, Greek and Mathematics, with something of Mental and Moral Philosophy. In the truly modern college a good deal of attention is given to the modern languages, to the sciences, to history, and to studies which are purely English. It may be remarked that there is much unreasonable prejudice against the study of the languages. While they should not monopolize the attention of the student to the exclusion of everything else, they rightfully may claim considerable of his time if the fullest culture is sought for. No other studies are more practical. In every department of life we are constantly employing language. Not only is this true of the clergyman, the lawyer, the statesman, and the journalist, but it is true of every private citizen who has the least to do with public affairs. The clerk in the store, even, employs lan guage more than he does arithmetic. Language is the repository and vehicle of thought. As listeners, as well as speakers, the significance of words and the content of sentences employed depend on the depth and comprehensiveness of our knowledge of language. Indeed, we think through language, and the reach of thought is limited by the scope of the language as understood by us. As man is a being who uses language more than anything else—employing it in business, in social life, in intellectual pursuits, in his relations with others, and in the subjective development of mental power—the more profoundly it is studied and the more meaning we are able to put into it, the grander and more practical will life become. In the foregoing considerations nothing has been said of the special forms of mental culture promoted by the study of language. The benefit thus obtained is justly regarded as exceedingly valuable, and it is generally conceded that it cannot, in every respect, be gained from any other line of study.

The partiality for mathematics grows out of two forms of service rendered by it; one of these, as the instrument of business and the development of science; the other, as helping to generate a habit of accuracy of thought and power of attention. Math-

ematics, therefore, will always be given a large place in the college curriculum.

The growing interest in science has compelled colleges to give it a larger place in the four years of study than it formerly occupied. In some institutions the traditional aristocracy and exclusiveness of the past have not been sufficiently dissipated to allow the study of nature its proper share of time. It should be borne in mind that he who reads intelligently the book of nature is not only in communion with truth under conditions very favorable to the inspiration of thought, but a habit of close observation is acquired which is exceedingly fruitful of scholarly attainments. One of the most important acquisitions is the spirit of intelligent searching after truth.

It is only within a few years that the study of history has occupied to any extent the attention of our American colleges. That the lessons we may learn from history are of great value to us is indisputable. And unless colleges choose to incur the odium of deliberately rejecting that which is universally recognized as highly important, historic studies should have a leading place in these institutions of learning.

Our mother tongue has usually received but little attention in the colleges of this country. The ancient languages were universally conceded to be of vital importance, while the English was pushed aside only as it came into notice through the Latin and Greek. It is time that the folly of this was clearly perceived, and a radical revolution effected. While all languages should be considered a unit, and should be studied in their relations one to the other, the English speaking student should have his eye always on the English, and make all other linguistic lines converge towards his mother tongue.

There is another broad field for colleges to occupy in which they come closer to the daily life, and hear the heart-throbbings of the public. We speak of the problems of Political Science, Social Science and Social Reforms. These problems should receive special attention if the college would do for the public all the work which may reasonably be demanded of it. And

problems of this nature should be pursued not simply by the perusal of a text book, or by listening to formal lectures, but by exhaustive research, the studying of the questions involved, from all sides. Thus will the knowledge gained be more exhaustive, the opinions formed more independent, while the most successful method of looking up the data for intelligent judgment on practical questions will be learned. In nearly every line of study the college ought to put the pupil in the way of going outside of the teachings of the text book, and making broad and extensive researches.

It is evident that any college fails to achieve the best and most reliable results unless it finds God at the foundation of all truth, unless it carries the student into the sphere of ultimate divine causation, as a reason for, and explanation of, all science and conditioned being. Intellectually the work is incomplete, the scholarship rests on the sand, unless God is the support of the great temple of truth that is reared. The race can never be strong without a God, and colleges which do not aim to bring the Unconditioned Absolute Will into the problem of nature, tolerate weakness instead of generating strength.

There are several facts to which we call attention.

We have arranged four distinct and radically unlike courses of study: the Classical, the Latin Scientific, the Scientific and the English. In the Classical, the Latin and the Greek hold a prominent place. In all colleges, both in Europe and America, until quite recently, there was no other course. And at present, many scholars maintain that more culture is gained from this line of work than from any substitute that has been offered.

In the Latin Scientific the Greek is replaced by other studies but *requiring the same amount of time for their mastery.* These studies are principally—though not wholly—in science and mathematics. But students who desire to make a specialty of Latin or some of the modern languages, can substitute further work in these languages for such branches in science or mathematics as have been introduced into this course in place of the Greek found in the Classical Course. This will make the course

pre-eminently linguistic, the same as the Classical Course. The degree conferred will be Bachelor of Philosophy.

In the Scientific Course there is no ancient language in the College curriculum, and but one year of required Latin in the Preparatory, and also one year of either Latin or Greek. But the amount of Mathematics, Science and History, is largely increased.

The college has established an English Course in which no Latin or Greek is found, but special attention is given to the study of the English Language, including the Anglo-Saxon. This course supplements the work of the English Course of the High Schools, and supplies a want which colleges generally do not meet.

The degree which the student will receive on graduation is determined by the course he has pursued up to the Junior year. The two years which follow are devoted wholly to *elective* work, except Psychology, Logic and one term of Chemistry, which are required of all students who are candidates for degrees.

Several studies in the Freshman and Sophomore years have recently been made elective.

CHAPTER III.

ALBION COLLEGE AND THE HIGH SCHOOLS.

The Public Schools are the most valuable provision for the education of the mass of the people found anywhere in this country. They reach the largest number of persons, supply the foundation of our civilization, and create conditions essential to the existence of free government. But colleges are doing a work of great importance. In some respects it must be quite unlike the work of even our best High Schools. It should be of a different grade, not only because the branches of study are of a higher order, but because of the greater maturity of mind of the pupil, the collection of more abundant means of illustra-

tion and research, and of the special methods it is possible to employ, contributing to more independent and thorough scholarship. The recitation becomes a less important factor, gradually giving place, more and more, to self-reliant personal research in the determination of truth, under the guidance, or with the advice, of men who labor in special lines of investigation.

For a few years past the conviction has been growing, that colleges should offer special advantages, not only to young persons who expect to enter upon a professional career, but to all who have high aims in life. The fact has come to be appreciated that, for the development of intelligent manhood, for the best discharge of the duties of citizenship, for meeting the demands of the highest forms of the arts, and for keeping pace with the advancing civilization of the age, the large class of persons who will carry forward the business and industries of the world would derive incalculable benefit from liberal culture. But how can ambitious young men and women, who have formed high ideals of excellence, prepare for college? This preparation must, in most cases, be obtained in the High Schools, if gained at all. And while these schools, perhaps, may retain their pupils under instruction a sufficient length of time to prepare them for college, provided the course of study has been adapted thereto, there are insuperable barriers in the way. We recognize the fact that the High School exists to meet local wants, and does its work best when it most fully meets such wants. It has been held that, for the pupil to fit himself for college, it is necessary to engage in special lines of work such as are not found in most of our High Schools, and which could not well be provided without sacrificing local interests. But for the last three or four years the Faculty of Albion College have been studying this question in the light of all the information they could obtain with a careful scrutiny of the principles involved, and have reached the conclusion that *the courses of study best adapted to the purposes of the High School, may, and ought to be, accepted in preparation for college.* We shall

therefore try the experiment, which we believe will be successful, of taking the student at the point up to which the best schools have educated him, giving him credit for all his work. This will practically throw college doors open to a large number of young persons, who on the old system would be deprived of the advantages provided in the higher institutions of learning. By this plan we shall not admit at any lower point of scholarship, but shall make the lines of study in preparation more flexible, holding that it is training and culture that are needed, which can be secured through superiority and adequate range of work, rather than by adherence to the old method of following always a special line of studies. We are convinced that a large number of schools of 12 grades—in the quality and work done—may be trusted to prepare for the Freshman year in college; and that many of the schools of 11 grades may be relied upon to fit the pupil for the Fourth or highest Preparatory year. We therefore make the following

ANNOUNCEMENT.

1. Under conditions hereinafter mentioned, we shall accept, without examination of students, the work of the best High Schools of 12 grades, as preparations for College. We shall accept the completed work of their English Course as sufficient to admit the student into the Freshman Class in our English Course, on graduation from which he will receive the degree of Bachelor of Letters. If the course he has pursued is more strictly Scientific, he will, in the same way, be admitted into our Scientific Course, for which the degree on graduation is Bachelor of Science. If the course studied was largely made up of Latin, or Latin and Greek, he will, in like manner, be admitted into College in the Latin Scientific, or Classical Course, which will prepare him, in the former course, for the degree of Bachelor of Philosophy, and in the latter for Bachelor of Arts. Under the same conditions we shall admit into our Fourth Preparatory year from schools of 11 grades which are known to be doing satisfactory work.

2. The regulations contained in the preceding paragraph apply to all schools which

(a) Have been visited by the Faculty of the University of Michigan and approved by them; or

(b) Have been visited by us and approved; or

(c) Have, by some other satisfactory method, supplied us with the evidence that, in extent, quality and completeness of work, the pupil has gained the scholarship and culture required to enter our classes. If the School has received formal approval according to (a) or (b) of this paragraph, we shall admit students directly on their diplomas and certificates. But if the school is not included in one of these classes, and it is desired to enter into relations with Albion College, the course or courses of study must be transmitted to us with such statements in regard to the work done as are considered important. This will be preliminary to an adjustment of relations. We will, at an early day, give information as to our judgment of the curriculum followed in such school.

3. To be admitted into the College without examination, the student, if coming from a school included in one of the classes of 2, (a) or (b), will present his diploma or certificate, together with a letter from the Superintendent or Principal of the School, informing us that his work has been thoroughly done, that his habits are studious, and that he possesses capacity for genuine scholarship. On the strength of this he will be immediately classified. If he comes from a school embraced in class 2 (c), he must present his diploma or school certificate, with a letter from the Superintendent or Principal of the school certifying to the earnestness and success of his work. He will then be classified provisionally according to the tenor of these documents, which classification will be made permanent after a few weeks' successful study in the institution.

CHAPTER IV.

APPLIANCES FOR INSTRUCTION IN NATURAL SCIENCE.

MUSEUM.—The Museum is permanently located in large, well-lighted rooms, occupying the second and third stories of the central building; and many improvements, not possible before, have been made. The collections are classified and arranged with special reference to the convenience of the student.

The museum, like the microscope, was long considered as something to be used as a matter of curiosity, the examination or use of which was to amuse or entertain rather than instruct. From even this standpoint the museum has been an educational agent, for no one can look through a well-arranged cabinet without absorbing knowledge which he did not possess before. But the best result which should be realized from the labors of the collector and curator is that students pursuing lines of work in natural history may here find ample illustrations of the objects about which they study. This is the prominent thought in the valuable facilities which are offered in the Museum of the College. In a word the Museum forms a very important factor in the educational forces of the Institution.

Acknowledgment is hereby made of donations to the collection from Mr. Charles Diffenbaugh, Mr. R. L. Warren, R. J. Floody, E. R. Downing, H. C. Scripps, Miss Lida Parce, Jas. W. Sheldon, Mr. Drake and A. E. Herrick, citizens and students of Albion. The contributions of these friends have added many fine specimens during the course of the year, and are gratifying indications of the interest manifested in this branch of our work.

Among the special features of the Museum may be mentioned the collection of coins and other historical relics. Cases are now provided for this collection, and it is to be hoped that soon we shall have a large amount of material to aid in the study of history. We are also exceedingly anxious to make

complete collections in two directions, viz:, Indian relics, and objects of interest used in the late war.

LABORATORIES.—The Chemical Laboratory contains tables for twenty-one students, fully furnished with re-agents and all apparatus required for the thorough demonstration of the facts and principles of the science.

The Biological Laboratory contains tables for twenty students, twelve compound microscopes, several hundred mounted objects, and all necessary appliances for preparing and mounting specimens in all departments of biological research.

These appliances are constantly increasing. They are regularly used in the class room, where they furnish experimental proof of the laws and theories discussed.

In connection with these laboratories, and easy of access by the students, is a chemical and biological working library of about five hundred volumes. These books are in constant use and furnish much collateral aid in subjects under investigation.

OBSERVATORY.—The Observatory, erected in 1883, is a substantial brick structure, two stories high. The first floor contains the lecture-room of the department of Astronomy and Applied Mathematics, together with the pier rooms through which pass the brick supports for the fixed instruments above. On the second floor is the instrument room, containing the Transit-Circle, Clock and Chronograph. Also on the second floor are three rooms designed respectively for an astronomical library, a computing room, and a room for portable instruments. The round tower, containing the Equatorial and surmounted by the dome, rises sufficiently above the main building to give an uninterrupted view in all directions. The equipment of the Observatory includes the following pieces:

(1.) A Refractor of eight inches clear aperture, manufactured by Alvan Clark & Sons, and supplied with Circles, Driving-clock, Micrometer, etc., etc.

(2.) A Transit-Circle, with four-inch Telescope, and circles of 16 inches diameter, read by two Micrometer-Microscopes to single seconds.

(3.) An Astronomical Clock with battery connections and break-circuit attachment.

(4.) A Chronograph of latest style, supplied with Saegmuller's maintaining power.

The telescope is the instrument to which all others in an astronomical observatory are secondary.

Its value as an aid to the vision consists chiefly in two things: (1) its light-gathering power, and (2) its magnifying power.

The light-gathering power depends upon the diameter of the object-glass, one of eight inches in diameter receiving and concentrating upon the pupil of the eye about sixteen hundred times the quantity of light that would otherwise be received.

In addition to the above, the lecture room of the Observatory is being supplied with such astronomical maps and charts as are necessary in imparting elementary instruction.

The department of Applied Mathematics, at present united with that of Astronomy, is fairly equipped for purposes of illustration in mechanics, optics, acoustics, heat, magnetism and electricity, especial attention having been given to electrical appliances in view of the rapidly increasing application of electricity to practical results. In surveying we have excellent instruments, giving the student full opportunity for all lines of field work.

CHAPTER V.

APPLIANCE FOR GENERAL LITERARY WORK.

LIBRARY AND READING-ROOM.—The number of books added to the library during the past year, aside from unbound volumes, is 379, making the whole number now in the library just 6,000.

The nucleus of a Bibliographical Museum has been formed by placing in the Library a glass case for books specially notable on account of age, rareness, ownership, etc.

In the management of the library great pains is taken to induce the students to use it as much as possible, since we hold

that to train them in the use of books, the store-house from which all alike must draw, is one of the most important functions of the College. With this object in view ample indexes are provided; books much in demand are placed within the reach of all; and new books are placed in a revolving case in the reading room, where their accessibility will tempt every one at least to look them over. The utilizing of new books is further secured by placing them in the hands of the teachers most interested, who frequently assign them to students to review before their classes, thus giving all an opportunity to learn the bibliography of the subject, and filling all with new zest for work in the several departments.

The usefulness of the various reports, collections, etc., in chemistry and biology, has been greatly increased by transferring them to the chemical lecture-room, which is now kept open during the day, and is being used as a study room by those most interested in these lines of study.

To facilitate such a use of the library, card indexes are prepared and placed in easy access to all students. First, a card index of authors, alphabetically arranged. In this the author's name is the leading word upon the card, and below it, or on successive cards, are placed the titles of all books in the library of which he is the author. The number of the book is placed upon the card opposite the title. The student, knowing the author's name, is thus guided to the desired book.

Another drawer contains a title index, or catalogue, of all the books in the library, on cards alphabetically arranged. In this the title of the book is the leading word upon the card, the author's name following. The advantage of cards, instead of a printed catalogue, is that it admits of continued accessions without destroying the alphabetical arrangement.

Then there is the subject index, in which the subject is the leading word upon the card, and all books treating upon that subject, even those in which it is only incidentally mentioned, are there referred to by name, number, and, if it is only a sketch or article in a book of which that subject is not the title, the

page also. A student, desiring to investigate any subject, is thus guided to all there is in books and pamphlets upon that subject in the library.

Another drawer contains the biographical index, where the student is guided to the biography and biographical sketches of any one of whom he wishes to learn.

Still another drawer contains an index of current events, where the important events of the day, as they transpire, are recorded on cards. If the student wishes to know when Mr. Emerson died, or when President Garfield was shot, or when any other important event occurred, he goes to this index.

Besides these the library is supplied with Poole's index of periodicals, in which all the leading periodicals of the day are indexed, up to 1832, supplemented by the Co-operative Index of Periodicals, published quarterly. By these, students are guided to what they desire to find in the bound volumes of periodicals. Thus there are marked out paths to guide both the faculty and the students to such information as they wish to obtain in the library.

It is customary for members of the faculty to assign to the students certain topics for research, or subjects to obtain information upon, and thus their acquaintance with books is greatly extended, and they are disciplined in the practice of research. Tables are placed in different parts of the library where such students are permitted to sit and prosecute their investigations. The library is open during all school hours, and on Saturdays, and is free to all students.

The reading-room is provided with a two-fold end in view: to furnish a wide range of general newspaper and magazine reading, and to supply advantages for special educational work. It contains the leading religious and secular papers of the country, with some from foreign lands, including French, German, Latin and Greek. It is supplied with the principal magazines of this and other countries.

MAPS AND CHARTS.—Of apparatus for illustrating the work in Language, Literature and History, we have probably as large

a collection as any school in the United States. Both the Latin and Greek departments are provided with full sets or classical maps. The Greek department has abundant materials for the illustration of Greek Archæology, and a rarely complete set of charts for exhibiting in detail the topography of ancient Athens. The head of this department is working out on an original plan a series of language charts which, when completed, will present to the eye a full outline of the leading facts of Greek Grammar.

The History department, where the "Layer Map" plan, (elsewhere described) has been introduced, has at its command about 180 maps, representing successive stages in territorial history. If every change which can be represented singly be counted, the total number of possible maps would aggregate about 800. In addition to the series formerly prepared, showing the development and break-up of the Roman Empire, the formation of the new nations up to 1843, A. D., the break-up of the Ottoman Empire, from 1699 to 1885, the development of Prussia to 1866, the growth and dissolution of the Napoleonic Empire, and the unification of Italy, we have this year prepared a set of "layer maps" for the United States, showing every territorial change in its history from 1763 to 1876,—changes. the number of which falls but little short of 100. As new maps are being constantly added, we hope to be able in a few years to exhibit every important territorial transfer appearing in the course of history.

The advantages of the device we employ are apparent. It is superior to the series of maps, because (1) it changes with history; (2) a more definite concept of the changed territory is obtained when it can be taken off and handled as a piece of cloth; (3) the student can be set to work out the changes for himself,—to build up or take to pieces the map; and (4) it is less expensive, involving but one or two full-sized maps. It is superior to the black-board scheme, because (1) it is clearer; (2) it is more accurate; (3) it is easier to reproduce, and so not too difficult for the student and the overworked teacher; and (4) it preserves both the original condition of things and the changed

order, each of which can be reproduced in turn, and thus the exact nature and extent of the change can be clearly and definitely seen.

Incidentally, the use of a soft-wood back has suggested several little devices which we find quite helpful. For battles we use a bright red spear-head of stiff cloth fastened with sealing wax to the head of a needle. These, being removable, are placed on the map just where events call for them; can be made large enough to show across any room without permanently disfiguring the map; do not crowd regions like the Netherlands, where many battles have been fought, till the confusion is hopeless; and, finally, furnish, in putting them on, a useful exercise for the student. Similarly, we use a yellow star on a black circle, for treaties of peace, and lines of colored braid to follow expeditions, such as Alexander's, or the crusades. Doubtless other expedients of the same nature will suggest themselves.

CHAPTER VI.

APPLIANCES IN THE SCHOOL OF ART.

CONSERVATORY OF MUSIC.—The Conservatory of Music is supplied with all the instruments required for successful work. There are in the institution eleven pianos, eight of which are used for instruction purposes. One of these is kept in the chapel for use in concerts and on other occasions in which a piano is needed. This is an instrument of more than ordinary power. Each of the three literary societies has a valuable piano, which helps to make music an interesting part of the weekly exercises. Students in the Conservatory are able, to a large extent, to practice on college instruments. Aside from these the institution is able to supply students to an almost unlimited extent, with the use of pianos at private residences in immediate proximity to the college buildings.

The institution possesses two organs, one of these with all the appointments of a two-manual pipe organ.

The department possess a Technicon for use of piano students in disciplining the muscles of the hand.

The Orchestra, composed of about fifty players, is supplied with all the variety of instruments employed for the production of orchestral music.

The Conservatory has a valuable musical library, which is being enlarged as desirable publications make their appearance. It is also in receipt of the best musical papers and journals.

SCHOOL OF PAINTING.—This school occupies a suite of rooms in the North College building, both as working rooms and for art gallery. The gallery contains about 150 hanging pictures. Some of these pictures have been painted in connection with the school, but a large portion of them are selections from the best American artists. There are also many very fine imported studies—copies from celebrated painters—which represent the various schools of art. These afford the student a fine opportunity to study and compare the various methods of conducting art work. The department keeps on hand a large supply of easels of uniform pattern, with material, stands etc., for the use of students. Persons prosecuting work in the rooms have access to about a thousand patterns. A complete set of models for drawing, consisting of cubes, cones, etc., are provided for use; also models of different parts of the human figure. The art room is supplied with a somewhat extensive collection of heads and busts of distinguished men of the past.

CHAPTER VII.

ADMISSION AND ENROLLMENT.

Students applying for admission must present satisfactory testimonials of good character. Of students coming from other institutions a certificate of honorable dismissal is required.

Before admission to recitations, the student must produce a Term Ticket from the secretary of the Board of Trustees, showing that the term bills have been paid. *The Faculty are not at*

liberty to give instruction previous to the presentation of the Ticket.

All candidates for admission will first call at the President's room, No. 3, chapel building. Regular examinations for admission are held the day preceding the enrollment at the opening of each term, beginning at 9 a. m. After examination the applicant will again report to the President.

The opening day of each term is Enrollment Day. As a special list of students is prepared for each term, all students must report for enrollment on the first day of each term. For new students this is the act by which they become members of the Institution. The tickets issued contain a list of the studies to be pursued, and also a statement of dues. All individuals intending to enter any of the departments of the College should report on the first day if possible. If this cannot be done, they will be received at a later date, if qualified to enter the classes. Persons who are already students are also *required* to take out their term tickets on Enrollment day, so as to be able, on the following day, to prosecute their work with the regular classes. The closing of a term does not terminate the student's connection with the institution; *and unless he graduates or is excused by the President he must be present on the first day of the succeeding term.* Absence on that day is as much a violation of the rules and order of the school, as though it occurred in the middle of the term.

Persons will be admitted only on examination, except the following: (1) Persons graduating from schools which are recognized by the University of Michigan as preparing for college. (2) Persons graduating from schools *approved* by action of the Faculty of Albion College as satisfactorily preparing for college, or for some point in our Preparatory course. (3) Persons bringing satisfactory certificates from schools which, though no formal action has been taken to put them in the class of approved schools, are yet known to be doing good work. On these certificates credit will be given, provided the student is earnest and successful in his studies here. We advise all students from graded schools to bring certificates of studies pur-

sued and standing in the same, and, if there is satisfactory evidence of thorough scholarship, credit will be given.

There is an examination at the close of each term on the studies pursued during the term. The daily work and the examination must both be satisfactory, to entitle the student to the record of passing on the same.

Students who fail to pass in their examinations at the close of the term must present themselves for re-examination on the day preceding Enrollment, at the opening of the next term, at 9 a. m.

Students who are not in their places at the opening of the term must, if minors, present valid written excuses from their parents or guardians; and if not minors, must give a satisfactory excuse for such delay.

A table of expenses for all departments is printed on a subsequent page.

The courses of study will appear later in the Year Book.

CHAPTER VIII.

GENERAL INFORMATION—LITERARY DEPARTMENTS.

COLLEGE OF LIBERAL ARTS.—Candidates for admission to the Freshman Class must be at least sixteen years old, must pass examination in the Primary English branches, and in all the studies of the Preparatory Course, or studies equivalent thereto, as taught in the High Schools, unless admitted on diploma or certificate from High Schools under conditions elsewhere stated.

Candidates for advanced standing must, in addition to the foregoing, pass examination on advanced studies for which credit is sought, unless coming from other colleges whose work is accepted by us. Persons not candidates for a degree will be admitted to the regular classes, but will be charged the matriculation fee, when their scholarship would entitle them to admission into the Freshman Class.

PREPARATORY SCHOOL.—The object of this school is to provide young people who desire to fit themselves for college with the most complete advantages to make such preparation. It is not an academic department for general study, but is conducted purely in the interest of those who intend to pursue studies required for admission into college. [For academic work a special department has been arranged, as is announced elsewhere in the Year-Book.] One of the chief features of the curriculum of the Preparatory School is that the modern languages are introduced at the very beginning of the course, in order that the student may be prepared to study the ancient languages, when reached, more successfully than it is possible otherwise to do. The entire work of the institution is based upon the principle that a considerable portion of the *present* in language, in history, in science, in philosophy, should be taught before the past, in order that the student may have the problem of knowledge clearly before him, so that he can intelligently study the development of truth. We begin with the *near*, the *concrete*, the *simple*, the *empirical*, and gradually proceed to the *remote*, the *abstract*, the *complex*, the *rational*. This is the natural and necessary order of mental growth, and the tasks to which the student is put should be in harmony with the laws of mind, instead of being in conflict with them.

Candidates for admission must be at least twelve years of age, and have a knowledge of the primary branches, including Descriptive Geography, Mental Arithmetic, Written Arithmetic through fractions, and some knowledge of English Grammar.

ACADEMIC DEPARTMENT.—No scholarship is symmetrical and complete without the study of the languages. Many, however, feel that they cannot take the time to pursue a full course. For this class we propose to provide the most ample opportunities to acquire a knowledge of such branches as they desire to master without taking up the languages. Therefore, an Academic Department—distinct from the preparatory and the

college—has been organized. The following branches of study are taught:

Arithmetic.
Algebra.
Geometry.
Trigonometry.
Surveying.
Calculus.
Physiology.
Zoology.
Biology.
Botany.
Astronomy.
Chemistry.
Physics.
Physical Geography.
Descriptive Drawing.
Mechanical Drawing.
Civil Government.
Grammar.
Analysis.
Word Analysis.
English Composition.
Rhetoric.
Elocution.
United States History.
European History, ancient, medieval and modern.
Roman and Grecian History.
History of Civilization.
American Literature.
English Literature, with other English studies below the College Junior year.

Students are admitted into this department whenever they are prepared to take up and successfully carry forward the work. They must not be less than twelve years of age, and must have such knowledge of arithmetic and English grammar as will enable them to do good work in these classes.

Until recently students pursuing special studies were catalogued as belonging to the Preparatory School, and published accordingly. Hereafter only those students who study the languages will be classified in the Preparatory School or College. Irregular students, or those pursuing partial courses, will be catalogued as Academic students unless they are studying some foreign language.

The expenses are the same as in the Preparatory School.

CHAPTER IX.

GENERAL INFORMATION—FINE ARTS' DEPARTMENTS.

CONSERVATORY OF MUSIC.—It is the chief aim of the Conservatory to teach both the Science and the Art of Music in such

a thorough and systematic way that they shall be, *what they so often are not, of available* and *practical* use to the student after having completed a course. Great care is taken to secure a correct technique; also a proper position of the person, hand and arm, while the pupil is seated at the instrument.

Careful attention is given to the development of the muscles of the hand and fingers, and in acquiring flexibility of fingers, wrist, etc. In short, the methods which have for so many years made the German Conservatories famous, are closely adhered to. Much time is given to the cultivation of a taste for the best forms of classic music.

The Course in Music consists of Seven Grades, each based upon such studies and selected pieces as form the standard of the various degrees of proficiency at the best institutions of a similar kind. Upon entering, each student will be examined and graded accordingly, while promotion is not limited by time, but depends entirely upon the progress of the student. A student of ability can, with proper application, almost finish the first three grades in one year. In most cases four years will be sufficient to complete the course. It is advisable that students should begin music with the determination of completing, at least a certain part of the course, if not the whole.

Instruction is given, both in private lessons and by "class teaching," according to the preference of the student. The classes consist of either two or three pupils.

The courses have been arranged so as to secure the greatest thoroughness and proficiency in music as a science and an art. Students are admitted for a single term, but all will see the advantage of taking a full course of instruction, including, not only the ordinary lessons given on the piano, organ, or violin, but also harmony and counterpoint. The literary studies of the course have been selected with reference both to sound and varied scholarship and the accomplishments of learning.

Aside from the regular lessons given at the instrument, there is a weekly drill of the entire Conservatory in the catechism of music. At these gatherings instruction is given which there

is no time to impart in connection with individual or class lessons. There are also weekly rehearsals to drill and fit for public playing. The student thus gains confidence, his faults are corrected, and he is prepared to use to the best advantage the knowledge acquired.

Instructors of superior ability are employed to teach in connection with any of the instruments used for orchestral or band music. It is our aim to make the College a center of interest and culture for the music-loving public, providing the best instruction for all who aspire to proficiency in any line of musica excellence.

As a part of the educational facilities of the Conservatory, there is also maintained, in efficient organization, a complete Orchestra. In this Orchestra there are at present nearly fifty performers.

Although orchestral music is generally transferred to the piano, yet the full effects of the Orchestra cannot be given by that instrument. Orchestral music is written in a special form and character, both to embody the idea of the composer, and also with reference to the instruments that are to express and interpret that idea. These instruments have a tone-color peculiarly their own, which is lost by transference of the music to the piano. The Orchestra thus opens to the students of music an entirely new field of instruction and culture which is of great value. It is, however, only the more advanced scholars who can advantageously avail themselves of its benefits, and only these, therefore, are allowed to become members.

During the year there are several Public Recitals which are especially intended to improve the taste for, and promote the appreciation of, the best masters. Haydn, Mozart, Beethoven, Bach, Mendelssohn and Schumann, furnish the broadest subjects to express the depths and grandeur of musical conception. The students are required to take an active part in these exercises. Also Recitals are given at the College by some of the most eminent musicians of Boston and other eastern cities, so

that the student shall not fail to come into relation with the highest power of the art of music.

For all students desiring to study the principles of Vocal Music, a rudimental class is organized, continuing through the year, the tuition for such instruction being merely nominal--to provide music for the most efficient movement of the class. After completing the study of the rudiments the students are admitted into the general chorus in which there is no tuition. The work of the chorus consists of the rendition of the higher forms of vocal music.

Voice culture is made a specialty. By referring to the list of students it will be seen that this department is very rapidly growing. Very many persons who enter upon the study of the principles of vocal music or join the chorus class, come to appreciate the desirableness of special voice training. All who desire to fit themselves for singing in church choirs, for teachers of vocal music, or for professional singing in any capacity, can here obtain the instruction and culture desired.

The music students are organized into a Theory Class, which meets each week for special instruction.

Students intending to teach music receive thorough instruction in the art of teaching, a special class being organized for that purpose.

Persons are admitted into the Four Years' Musical Course directly, on application, and are classified according to their proficiency in music. To be admitted into the Six Years' Course of Music and Literary studies, they must pass examination in geography, arithmetic, grammar, orthography, and penmanship, and pay a matriculation fee of five dollars.

The Courses of Study are printed farther on in the Year-Book.

The Charges for Tuition will be found on a subsequent page.

The foregoing statements, so far as they relate to instrumental music, refer specially to study in connection with the piano, or piano and organ. We are, however, giving much attention to instruction on the violin. From no instrument can more

charming music be drawn, nor music which, if properly used, is more refining.

SCHOOL OF PAINTING.—The aim of this department is to conduct the pupil with thoroughness from the simplest rudiments up to a knowledge of the higher branches of art, giving, as far as possible a perfect understanding of all the work entered upon. The time has come when everybody is expected to have some knowledge of the fine arts; and one year, or even one term, given to the study may prove a source of both pleasure and profit. In connection with this there is the incentive drawn from the fact that the product of the labor bestowed will remain as a possession to exert an elevating influence upon all who will look upon it. For certainly no branch of study can be more refining than that which calls attention to, and increases admiration for, all that is beautiful which God has made.

The course of study as printed elsewhere in this volume will best explain the character and range of work. It will be seen that the student receives special instruction in free-hand and illustrative drawing, mechanical drawing, sketching from nature, fine map drawing, object drawing, linear and aerial perspective; landscape, figure, flower and fruit painting in oil, water-colors, and French pastel; decorative painting and designing; the mixing of all shades from a few primary colors to all the art requires.

Great emphasis is put upon sketching and drawing, both in preparing pictures for the paint, and in sketching from nature, life, and objects. This, though a rare accomplishment, is by no means difficult to attain if the student has ambition and persistence. It is within the reach of all, not requiring genius or remarkable talent, only love for the work, as is true in anything in which we succeed.

The study at the beginning will usually consist in copying from some one of the pictures selected—usually a small landscape—and, during the first term, a student of ordinary ability can finish from three to five paintings, which paintings, if thoughtfully executed, could usually be sold for twice the

tuition paid, though in most cases they are kept to ornament the home.

It will be seen that instruction is given in landscape work, portrait painting, pen drawing, etching, charcoal work, decorative art, etc.

The charges for instruction—which are moderate—will be found on another page.

CHAPTER X.

GENERAL INFORMATION—COMMERCIAL DEPARTMENT.

The object of this department is two-fold:

1. It gives to all who may wish to engage in business pursuits an opportunity to fit themselves in the most practical manner possible.

2. It affords an opportunity to all students at their option to take commercial studies as a part of a literary course, and receive credit for the same.

The benefits of a business education are becoming more apparent each year. The rapid increase in our population is causing a corresponding growth in our commercial transactions. This increased activity in business circles must necessarily open the way to many a young man for a successful entrance into the active duties of life. The first question which every thoughtful young person will ask is, How may I best fit myself so as to succeed in life? To this there can be but one answer, Educate yourself. If you can possibly obtain the funds and can spare the time, take a thorough literary course at some good college, and then obtain a business education. To those who are limited as to time and money, we say by all means obtain a practical business education. Business lies at the foundation of all the affairs of life, and economy is the fundamental principle of a successful business career. There is no vocation in life in which, greater success cannot be ob-

tained by him who is familiar with the laws of business than by the person who is ignorant of these laws. But where shall I obtain this business education which will prove of so much benefit to me? We answer, At some first-class Business College. To-day the Business College is to the business world what the Law School is to the legal world, the Medical School to the medical world, or the Theological School to the religious world. It is that which furnishes to the business world its leaders.

The successful business man of to-morrow will be he who has had the best opportunity of developing his talents. The demand of the times is for active and wide-awake young men. Formerly it was thought best that a young man should learn his trade or profession during an apprenticeship, but we *now* have schools that furnish just such practical educations as are needed. The objection to Business Colleges is oftimes raised that they are merely theoretical and are of no practical value; that the time spent in taking a course in book keeping could much more profitably have been spent in some office where a remuneration for one's work could have been obtained and the knowledge of book keeping also acquired.

This objection was much more true ten years ago than now, and yet not all Business Colleges have kept pace with the times. The aim is something practical, but the majority have not passed the theoretical period. Right here we wish to present the claim of Albion Business College as being a thoroughly practical school and an equal of any to be found. In our school we use no text book. The student becomes a business man the moment he enters school and is thrown entirely upon his own resources. What he learns by experience he will never forget. He sees the transaction as it occurs, and associates the entry with the transaction. Every entry to be found in a student's book has a counterpart is some other student's book. There are no fictitious transactions. The student handles the goods which he buys and sells, giving and receiving checks, notes, drafts, and all the various forms of commercial paper. By this method the student is taught self-reliance. There are

no two sets of books in the school that are alike and hence there can be no opportunity for copying results. Each student must think and act for himself. In our school only the shortest methods are used. We follow no one style of book-keeping but take advantage of the good points of all. Only real values bring out and test the ability and sagacity of the person concerned. It is a misnomer to call an imaginary transaction practical. This miniature world of business, where students vie with each other in making the most desirable bargains and investments, to the end that the result of their labors may show a profit, accomplishes infinitely more in developing their powers and capabilities, teaching them to think and act for themselves, than is possible by any other plan.

Another reason why so many Business College graduates are not fitted for work is because of the short courses which so many colleges present. Two to four months is not time enough in which to learn a profession. Practice makes perfect, and it requires a good deal of it at that. In the preparation of our course we have had in mind not simply a trained book-keeper, but rather a trained business man. The course is designed to cover a period of nine months.

Our Course of Study has been arranged with the aim of developing the business capacity of the student by a thorough course of training. Its object is not simply to make book-keepers, but also to impart a knowledge of the laws which govern the business world; a knowledge of penmanship, grammar, mathematics, and business forms; and thus by a broad and systematic training our students will become successful business men and worthy citizens of our great Republic.

PENMANSHIP.—A plain and legible hand-writing is the one thing that every person should possess, and it is especially true of those who intend to enter upon a business life. The first question asked by those wishing to employ a young man is, "Is he a good writer?" After a good character the best recommendation for any young man is a good style of business writing. More than anything else, it will open up a way for

him in life. After the way is opened he must look to his other resources as well, to enable him to keep it. The special object will be to secure to each student a rapid, plain and legible hand. Most of the instruction is personal, and enough class work is introduced to keep up the interest.

In our Ornamental Penmanship Department, instruction is given in Off-Hand Flourishing, German Text, Old English Letters, Pen Drawing, and all other branches of pen work. Special rates will be given those who may wish to do work of this kind.

ENGLISH BRANCHES AND COMMERCIAL LAW.—Realizing that our course should be made as practical as possible, we have introduced those studies which, when pursued with book-keeping and penmanship, will enable a young man to obtain a thorough knowledge of business. All our work in Arithmetic, Commercial Law, Grammar, Commercial Forms, and Correspondence, is done very thoroughly, and only those parts of each study are dwelt upon, which are of the most importance.

BOOK-KEEPING.—Our method of teaching book-keeping and business differs from that which is generally employed by Business Colleges. Our school is a completely organized Business Community, and business is carried on by our students in the same manner as by merchants in the business world. On entering the school the student is furnished with a cash capital of one thousand dollars, together with all the blanks that are necessary for the transaction of business. Aside from the set of books, the following business forms will be used during the Course: Notes, Drafts, Receipts, Checks, Bill Heads, Shipping Invoices, Freight and Shipping Receipts, Certificates of Deposit, Stock Certificates, Deposit Slips, Insurance Policies, Bills of Exchange, Account Sales, Statements, Deeds, Mortgages, Leases, Bills of Sale, and in fact every form ordinarily used in business. Our merchandise is represented by small cards, each of which has a given value, and is bought and sold at a discount proportionate to the supply and demand. The school is also supplied with College Currency. The capital with which

the student has been furnished, he now deposits in one of the College Banks and takes a Pass Book. He next leases a place of business and at once begins to job. He buys from the student merchants at the best discounts possible, and finds in the teachers customers for all the goods he may have to sell. He is shown how to properly fill out the various forms, make the different entries, correctly post the same, make out statements and close the Ledger. This same process is gone through with several times until he becomes familiar with it and is able to finish a set without help. He is now advanced to the Boot and Shoe business. From now on he buys from the Merchants' Emporium, at wholesale prices, and sells to jobbers. He is also compelled to do some jobbing in each set for the purpose of increasing the number of the transactions, and enabling him to successfully handle large numbers in trial balances. From the Shoe business he advances through the different lines of trade, such as Dry Goods, Groceries, Flour and Feed, Produce and Provisions, Commission, Clothing, and General; in each of which he finds some principle which is as yet new to him. After finishing his work as a retail merchant the student is ready for the offices, which are provided with sets of large books. These are the Transportation office, Merchant's Emporium and the Bank. Of the last two we have two each. Upon the completion of the prescribed course the student is given a final examination on all points covered, and if he have an average of 80 per cent. he is given a diploma.

SHORTHAND AND TYPE-WRITING DEPARTMENT.—During the past fifteen years a new profession has been born. It is that of the Ananuensis. Mainly through the invention of the type-writer has the art of stenography found a field of usefulness that was hardly thought of by its early supporters. The claims of "Takigrafy" to public favor may be stated as follows: (1) Not only is it a correct representation of our language, but it may be easily adapted to any other language. (2) Any person can learn it and it can be put to practical use in nearly every profession in life. (3) It is far more easily

learned and read than longhand. (4) It saves to every person using it at least three hours out of every four, and eight-ninths of the labor used in writing longhand. (5) It teaches the correct pronunciation of words. (6) It furnishes a lucrative business to large numbers of its followers.

The system used by us is Lindsley's "Takigrafy," a system that has been before the public for a number of years, has been thoroughly tried and found worthy in all respects. A great many have tried to learn shorthand and failed because they have chosen complicated systems. We claim the following advantages for "Takigrafy": First, It is phonetic. Each character used represents a distinct sound, hence we have no complicated letters. Second, Position is not a principle of our system. The same character has the same meaning wherever found. The form of the letter determines it and not its position. Third, The sounds most often occurring are represented by those characters which are most easily made. In most cases the letters join easily to each other, forming a running and rapid handwriting. Fourth, It is the most easily learned of any of the standard systems, because it is the most natural.

In addition to the instruction in Takigrafy our students have the use of Hammond Typewriters, the best in the market to-day, and are drilled upon the principles of correspondence. An hour a day is also devoted to the improvement of their penmanship. The average time necessary for the completion of the course is four months. For further information concerning this department or for our circulars, address, D. W. Springer, the Principal.

CHAPTER XI.

DEGREES.

COLLEGE.—The degree of Bachelor of Arts is conferred upon all who complete the Classical Course.

The degree of Bachelor of Philosophy is conferred upon all who complete the Latin Scientific course.

The degree of Bachelor of Science is conferred upon all who complete the Scientific course.

The degree of Bachelor of Letters is conferred upon all who complete the English course.

None of the above degrees will be conferred except upon satisfactory examination, and payment of the regular fee of five dollars; and *the name of no student will be presented by the Faculty to the Board of Trustees for a degree till he has submitted to the Faculty the receipt of the Secretary for the payment of all dues, including the fee for diploma.*

No one will be admitted as a candidate for any of the above degrees later than the first term of the Senior year.

The degree of A. M., Ph. M., or M. S., unlike that of LL. D., or D. D., is, in theory, not honorary, but a voucher for the recipient's actual and ascertained progress in some special line of post-graduate work; while in practice these degrees have been almost universally conferred by American colleges without any reference to the preparation or fitness of the candidate. During the last decade, however, there has been a general movement toward the correction of this evil; in harmony with which movement the Board, in 1879, passed a series of resolutions which furnish the basis of the following regulations:

1. Graduates of any year previous to 1880, of three or more years' standing, who have been engaged for three years in literary or scientific pursuits, will be recommended for the Master's degree, upon written application and the payment of the regular fee of five dollars.

2. Any person graduating subsequently to the year 1879, may obtain the Master's degree by either of two methods, viz: (1) one year of exclusive study in Albion, or (2) a three years' course of reading pursued in connection with other occupations.

3. A candidate electing either of these methods will be required, (1,) at the beginning of his course to elect, with the advice and approval of the Faculty, one principal and two subordinate lines of study; (2,) at least one month before recommendation for the degree to pass a satisfactory examination

upon such work in each of the three lines as may be specified by the Faculty; and (3,) at least two months before recommendation for the degree to present a thesis upon some topic approved by the Faculty in his principal line of work.

4. In the case of one-year candidates, residence in any college town or other place furnishing facilities for special study, such as libraries, museums, etc., will be accepted in lieu of actual residence in Albion; provided always, that all other conditions herein stated are rigidly complied with.

5. In no case will the candidate be recommended for the degree before he shall have paid in the regular fee of five dollars.*

The plan followed by the student will embrace one principal line of study, and two subordinate lines. This work can be done in any of the departments represented in college courses, or ordinary post-graduate lines of study, embracing also the leading questions of the day.

PROFESSIONAL SCHOOLS.—Students who complete the six years' course in the Conservatory of Music will receive the Degree of Bachelor of Music.

Students completing the six years' course in the School of Painting will receive the Degree of Bachelor of Painting. A Diploma will be granted to any person completing the four years' course in music; and also at the completion of the four years' course in painting. A Diploma will be awarded to those who finish the Commercial course.

*NOTE.—Any person desiring to become a candidate for either of these degrees will at once communicate with the Secretary of the Faculty, stating the lines he would prefer to work in, his present occupation, his facilities in the matter of libraries, etc., etc., when the Faculty will determine, as nearly as possible in accordance with the applicant's inclinations, the studies to be pursued, prescribe the books to be used, etc., etc. As the work will be entirely elective, no specific course can be here laid down; but in general it may be said that the candidate will be expected to work in the subordinate lines as a general student; in the principal line as a specialist.

CHAPTER XII.

SPECIAL PRIVILEGES.

RELIGIOUS.—On each school day at 9 a. m., religious services are held in the College Chapel, which all the students are required to attend.

On Sunday morning they are required to attend public worship at such church as they or their parents or guardians may select, and each student is expected to be uniform in his attendance at the church of his choice.

Every student also is required to attend the Sunday afternoon lecture given by the President. These lectures are upon some moral or religious theme.

On Thursday evening is held the general weekly prayer-meeting, which is a voluntary service, but is attended by a majority of the students.

On Tuesday evening there is a church class, composed of students, of which Prof. Barr is the Leader.

At 3 p. m. each Sabbath, a students' gospel meeting is held in the chapel. This is followed by a Bible Reading service among the ladies. At 9 a m. on Sabbath the young men meet for like study.

There are in the Institution two Christian Associations, one composed of young men, the other of young women. They perform much valuable work.

Albion College is not a theological school; it is not its office to impart instruction distinctively on theological and eclesiastical subjects. But believing in morality we must believe in religion. No institution of learning will have a healthy moral atmosphere which is not pervaded by a christian spirit. To guard young men from the vices so common in every community there must be a distinct religious sentiment and a positive spiritual atmosphere from which immorality is shut out, and which serves as an inspiration to pure thoughts and a correct life. But while Albion College does not teach theology, it does

teach God as the Creator of all things, as a personal providence to every human being, as the author of the Bible, and in Christ the Redeemer of the world, who is ready to save every one who in penitence and faith will come unto him for everlasting life. While the school is not sectarian, and does not interfere with the denominational preferences of any student, and while it does not aim to make educated ministers any more than educated lawyers or physicians or business men, it does hold that God has rights in every lecture-room, that he must not be shut out from any department of instruction, and that truth can have no foundation only as it rests finally on the being and creative power of God. The authorities of the college hold that character is more than scholarship, and to be perfect the character must be christian. The aim is to supply the world with educated christian men and women for all the professions, for all departments of legitimate business, and for all proper relations in life.

SOCIETIES.—There are three Literary societies connected with the Institution: The *Erosophian Society*, the *Eclectic and Athenïædes Society*, and the *Philozetian Society*. The two former are college societies, the latter is connected with the preparatory school. Students in preparatory classes may join the *Philozetian Society* and remain in the same until reaching the Freshman Year. They are not at liberty to become members of either of the regular college societies before they complete the studies of the first three preparatory years.

The *Missionary Society* is organized for the promotion of the missionary spirit.

There are two Christian Associations—the Y. M. C. A. and the Y. W. C. A.

A Reading Circle has been organized in connection with the Conservatory of Music.

The Ladies' Library Association carries forward its work by the employment of eminent lecturers, the profits accruing being devoted to the purchase of books for the library. It has this year paid $140 into the library fund.

A college paper called the *Pleiad* is published by a society or stock company organized for that purpose.

The Literary Societies have fitted up elegant apartments in which to hold their weekly meetings.

No literary or other society can exist in connection with the Institution unless by permission granted after the Constitution and By-Laws of the same shall have been submitted to the Faculty for examination, and shall have received their approval. Whenever the workings of any society shall be deemed prejudicial to the interests of the Institution, such society will be dissolved.

The times and places of the meetings of societies will be subject to regulation by the Faculty; and all meetings, whether of regular societies, or of any other body of students, shall be open for the attendance of any member of the Faculty or of the Board of Trustees.

No society in the College shall invite any lecturer to address them in public until the name of the proposed lecturer shall have been laid before the President, and he shall have given permission to extend the invitation.

CHAPTER XIII.

COLLEGE REGULATIONS.

Only such requirements of the college as relate to good order and wholesome discipline are here presented. Indeed the great body of college laws must be unwritten. They need not and cannot be put on the printed page. The government of the Institution is not carried forward by formulated rules of conduct; these are not needed to secure correct deportment any more than in a well regulated family. The following are given for information on points which have no special bearing on questions of morality. They relate to necessary conditions of successful work:

1. Persons coming to Ablion for the purpose of entering any

department of the College are subject to its government from the time of their arrival; and whenever a student has entered College he is under its jurisdiction until his connection is formally closed by graduation or otherwise.

2. Students who are not in their places at the opening of the term, if minors, must present written excuses from their parents or guardians for their delay; and if not minors, must give a satisfactory excuse for such delay.

3. Uninterrupted attendance upon college duties during term time is required. Under ordinary circumstances visiting friends or home is discouraged.

4. Calls on students, whether by students or other persons, must not be made at such hours, or for so long a time, as to *interfere with college duties.*

5. Young ladies are allowed to receive calls from gentlemen only to a *limited extent*, and in *public rooms* occupied by the family there residing. All calls must be made during the *early part of the evening*, and in no case may continue after 9.00 p. m., standard time.

6. Young ladies are not permitted to absent themselves from their rooms in the evening except on special permission granted by the President.

7. All students are expected to devote to study the hours designated for that purpose, and at their own rooms. Young men who employ the evening for *other purposes than study* violate the order and regulations of the Institution, and render themselves liable to discipline.

8. Young ladies may not attend lectures, concerts, or any public or private entertainments, or absent themselves from their rooms in the evening, except on special permission granted by the President.

9. No student is permitted to leave town without the President's permission.

10. Students are not allowed to board or room at any place the Faculty disapprove, nor any longer at a place than they

approve, nor to change their place of boarding or rooming during the term without the consent of the President.

11. Young ladies and gentlemen, unless they are brothers and sisters, will not be allowed to occupy rooms in the same house.

12. No student is allowed during term time to engage in teaching, or to recite in other than the classes of the Institution, except by permission of the Faculty.

13. No student can drop any study without the consent of the President and Instructor.

14. All unexcused delinquencies are registered, and when the number amounts to three, notice is given to the student and to his parents or guardian. When the number of unexcused delinquencies amounts to five, the President announces the suspension of the student. Students may be suspended or dismissed from the Institution whenever, in the judgment of the Faculty, the interests of the school require it. A single case of willful neglect of duty is sufficient reason for discipline, as it is an infraction of the order and requirements of the Institution.

15. All delinquencies, such as tardiness, deficiency, offenses against good order in the recitation rooms, are dealt with by the Professors of the Departments. Flagrant cases are reported to the President or Faculty.

16. Before their delivery in public all literary exercises of students must be submitted to the Professor of Rhetoric or some other member of the Faculty.

17. No person may be invited by the students to deliver an address in connection with the Institution except by permission of the President.

18. Students who at the close of a term do not expect or desire to remain the following term *must apply for leave of absence or honorable dismission* from the Institution. Unless dismissed or excused they are subject to the regulations and government of the College. *Unexcused absence works forfeiture of privileges* heretofore gained by enrollment or matriculation.

19. Entering the Institution is a pledge on the part of the student faithfully and conscientiously to obey all the rules and regulations.

CHAPTER XIV.

COURSES OF STUDY.

PREPARATORY SCHOOL.

FIRST YEAR.

CLASSICAL.		LATIN SCIENTIFIC		SCIENTIFIC		ENGLISH	
Arithmetic	5	Arithmetic	5	Arithmetic	5	Arithmetic	5
English Grammar	5	English Grammar	5	English Grammar	5	English Grammar	5
French	5	French	5	French	5	U. S. History.	5
Arithmetic	5	Arithmetic	5	Arithmetic	5	Arithmetic	5
English Grammar	5	English Grammar	5	English Grammar	5	English Grammar	5
French	5	French	5	French	5	Word Analysis	5
Arithmetic	5	Arithmetic	5	Arithmetic	5	Arithmetic	5
English Analysis and Composition	5	English Analysis and Composition	5	English Analysis and Composition	5	English Analysis and Composition	7
French	5	French	5	French	5	English Phonetics	3

SECOND YEAR.

CLASSICAL		LATIN SCIENTIFIC		SCIENTIFIC		ENGLISH	
Rhetoric	5	Rhetoric	5	Rhetoric	5	Rhetoric	5
Algebra	5	Algebra	5	Algebra	5	Algebra	5
German	5	German	5	German	5	German	5
Civil Government	5	Civil Government	5	Civil Government	5	Civil Government	5
Algebra	5	Algebra	5	Algebra	5	Algebra	5
German	5	German	5	German	5	German	5
English History	5	English History	5	English History	5	English History	5
Algebra	5	Algebra	5	Algebra	5	Algebra	5
German	5	German	5	German	5	German	5

THIRD YEAR.

CLASSICAL		LATIN SCIENTIFIC		SCIENTIFIC		ENGLISH	
Latin	5	Latin	5	Latin	5	Americ'n Liter't're	4
PhysicalGeography	5	PhysicalGeography	5	PhysicalGeography	5	PhysicalGeography	5
Modern History	3	Modern History	3	Modern History	3	Modern History	3
Physics	3	Physics	3	Physics	3	Physics	3
Latin	5	Latin	5	Latin	5	Map Drawing	2
German	3	German	3	German	3	Americ'n Liter't're	3
Modern History	3	Modern History	3	Modern History	3	German	3
Physics	4	Physics	4	Physics	4	Modern History	3
						Physics	4
Latin	5	Latin	5	Latin	5	English Literature	5
Botany	5	Botany	5	Botany	5	Botany	5
Medieval History	3	Medieval History	3	Medieval History	3	Medieval History	3
Illustrative Drawing	2	Illustrative Drawing	2	Illustrative Drawing	2	Illustrative Drawing	2

FOURTH YEAR.

CLASSICAL		LATIN SCIENTIFIC		SCIENTIFIC		ENGLISH	
Latin	4	Latin	4	Latin (4) or Greek	5	French	5
Greek	5	English Literature	4	English Literature	4	English Literature	4
Geometry	4	Geometry	4	Geometry	5	Geometry	4
Roman History	3	Roman History	3	Roman History	3	Roman History	3
Latin	4	Latin	4	Latin (4) or Greek	5	French	5
Greek	5	Mechanical Dr'w'g	4	Mechanical Dr'w'g	4	Mechanical Dr'w'g	4
Geometry	2	Geometry	2	Geometry	2	Geometry	2
Physiology	5	Physiology	2	Physiology	5	Physiology	5
Latin	5	Latin	5	Latin or Greek	5	French	5
Greek	5	German	4	German	4	German	4
Geometry	3	Geometry	3	Geometry	3	Geometry	3
Ancient History	3	Ancient History	3	Ancient History	3	Ancient History	3

COLLEGE—FRESHMAN YEAR.

CLASSICAL		LATIN SCIENTIFIC.		SCIENTIFIC		ENGLISH	
Latin	4	Latin	4	Modern English History	4	Modern English History	4
Greek	5	Algebra	5	Algebra	5	Advanced English Grammar	5
Astronomy	3	Astronomy	3	Astronomy	3	Astronomy	3
French	3	French	3	French	3	French	3
Latin	3	Latin	3	Microscopy	3	Microscopy	3
Greek	4	American Literature	3	American Literature	3	Early English	3
Astronomy	3	Astronomy	3	Astronomy	3	Astronomy	3
Geometry	4	Geometry	4	Geometry	4	German	3
German	2	German	2	German	2	Electives	4
Latin	5	Latin	5	Botany	3	Botany	3
Greek	4	Geometry	4	Geometry	4	Early English	3
Zoology	4	Zoology	4	Zoology	4	Zoology	4
German	3	German	3	German	3	German	2
						Electives	2

SOPHOMORE YEAR.

CLASSICAL.		LATIN SCIENTIFIC.		SCIENTIFIC		ENGLISH	
Latin	3	Latin	3	Biology	3	Biology	3
Greek	5	Mod. Cont. Hist.	3	Mod. Cont. Hist.	3	Anglo-Saxon	3
Trigonometry	5	Trigonometry	5	Trigonometry	5	Modern Continental History	3
Electives	2	Electives	4	Electives	4	Advanced Rhetoric	4
						Electives	2
Latin	5	Latin	5	Physics	3	Anglo-Saxon	3
Greek	4	General Geometry	5	General Geometry	5	Modern Continental History	3
History of Civilization	3	History of Civilization or Physics	3	History of Civilization	3	History of Civilization	3
Electives	3	Electives	2	Electives	4	Trench*	2
						Electives	4
Latin	3	Latin	3	Physics	3	Anglo Saxon	3
Greek	4	Calculus	5	Calculus	5	Trench*	3
History of Civilization	3	History of Civilization or Physics	3	History of Civilization	3	History of Civilization	3
Electives	5	Electives	4	Electives	4	Electives	6

JUNIOR AND SENIOR YEARS.

This table contains, in addition, all the Elective studies of preceding years.

PHILOSOPHY.	THEOLOGY.	LATIN.	GREEK.	NAT'L SCIENCE.
Psychology* 5 History of Philosophy† 3 Pedagogy 2	Old Testament History† 3 Greek Testament 2 Hebrew 2 Res. Comp. Religions 2	Cicero— De Senectute } 2 De Amicitia } Horace—Odes 2 Composition 1 Cicero— Tusculan Disputations 3 Lucretius 2	Epic Poetry† 3 Metres† 1 Drama* 3 Metres* 2 Literature* 1	General Chemistry 5 General Biology 3 Sanitary Science† 3
Psychology* 3 History of Philosophy† 5 Theism* 5	New Testament History† 3 Greek Testament 2 Homiletics 2 Hebrew 2 Res. Comp. Religions 2	Latin Literature 2 Horace—Satires and Epistles 2 Composition 1 Plautus 3 Pliny—Epistles } 2 Cicero—Epistles }	Epic Poetry† 3 Drama* 2 Literature* 3	Qualitative Chemistry 5 Microscopy 3
Moral Science† 5 Logic* 4	Church Hist.† 4 Evidences of Christianity† 4 Greek Testament† 2 Hebrew 2 Res. Comp. Religions 2	Livy 3 Terence 2 Tacitus 2 Seneca 2 Christ'n Hymns 1	Lyric Poetry† 2 Metres† 1 Plato* 4 Literature* 2	Mineralogy 3 Organic Chemistry 2 Animal Biology† 3 Vegetable Biology 3 Geology 5

JUNIOR AND SENIOR YEARS—CONTINUED.

HISTORY, POLITICS AND ECONOMICS.	ENGLISH	MATHEMATICS, PURE AND APPLIED	MODERN LANGUAGES.
Modern Continental History* 3 Political Economy† 3 Political Science* 2 U. S. Constitutional History† 2 Research Class in Politics and Economics 2	Anglo-Saxon 3 History of English Literature† 3 Science of Rhetoric* 4 American Literature—Study of Masterpieces 4 English Lit.—Study of Masterpieces 4	Calculus 3 Surveying 3 Physics 3 Astronomy 3 Quaternions 3	French III and VI as described in the outline of work. German IV and VI as described in the outline of work. Italian Spanish
Modern Continental History* 3 History of Civilization† 3 Political Economy† 3 Political Science* 3 U. S. Constitutional History† 3 Research Class in Politics and Economics 2	Early English† 5 Anglo-Saxon* 3 History of English Literature† 3 Trench on Words 2 American Literature—Study of Masterpieces 3	Calculus 3 Physics 3 Astronomy 3	French IV and VI as described in the outline of work. German IV, V and VI as described in the outline of work. Italian Spanish
History of Civilization† 3 International Law* 4 Constitutional History of England† 4 Research Class in Questions of the Day 2	Early English† 3 Anglo-Saxon* 3 Trench on Words* 3 English Literature—Study of Masterpieces 5 Shakespeare 2	Physics 3 Modern H. Algebra including Determinants 2 Astronomy 3	French V and VII as described in the outline of work. German IV and V as described in the outline of work. Italian Spanish

Studies marked † will be taught during 1889-90; those marked * during 1888-9.

The foregoing tabulated courses of study may be varied to some extent from time to time at the discretion of the Faculty. They are printed to show the kind and range of work, and if not literally followed an equivalent will be substituted. The attention of the student is directed to the outline of the work on pages which soon follow.

Some very important changes have been made in the curriculum of studies. The system of college work is made to conform to the most advanced views of leading teachers, and is brought into harmony with the natural and necessary order of mental growth—both individual development and race civilization. A few words of explanation only in this place.

By the time the student reaches the beginning of the Junior year he is regarded as prepared for more independent work than he could generally carry forward in the earlier part of his course. Henceforth his individual preferences are more largely consulted. It will be seen that lines of study and investigation are provided from which he may select the branches to be pursued. We invite attention to the following points.

1. A few studies are elective previous to the Junior year.

2. All studies in the Junior and Senior years are elective with the exception of Psychology, Logic and one term of Chemistry.

3. Students in these years must select from at least *two* lines.

4. It is recommended that they select from *three* lines—they must not select from more than *five* lines. These selections will be made under the advice of the Faculty, so that consistency of work may be secured.

5. The student will be required to have fifteen hours of recitation each week, or what is equivalent thereto.

6. A large amount of *research* work will be prosecuted during the Junior and Senior years.

7. *The Degree conferred at graduation will be determined by the course pursued up to the close of the Sophomore year.* If, previous to that time the student has taken the studies of the classical course, his degree will be "Bachelor of Arts;" if Latin

Scientific, it will be "Bachelor of Philosophy;" if Scientific, it will be "Bachelor of Science;" if English, it will be "Bachelor of Letters." The Junior and Senior studies are largely of a university character, preparing the student for independent investigation when, from graduation, he must carry forward his studies without the presence and guidance of a living teacher. The lines of study provided have been made so broad and varied that the candidate for any of the professions, as well as the business man, can obtain here the scholarship which will best fit him for his chosen and anticipated mode of life.

It will be seen that the order in which some of the branches of study are pursued is not quite the same as that adopted in many institutions, but no confusion grows out of this arrangement, as all the studies are taught in contiguous years. Those who have pursued Latin and Greek before the modern languages, find no inconvenience in taking up these modern languages at any point in their course. Whatever may have been the order of study in the High Schools, the classification will depend on the amount and value of the work done, not on the fact of pursuing the precise branches laid down in our Preparatory School.

CHAPTER XV.

BRIEF OUTLINE OF WORK PROVIDED FOR IN THE TABULATED COURSES OF STUDY.

MODERN LANGUAGES.

FRENCH.

I. The principal aim of this course will be the acquisition of a knowledge of the essentials of French grammar, and of an ability to translate at sight ordinary French prose. Books to be used: Böcher's Reader; Erckmann-Chatrian, *Le Conscrit de 1813;* George Sand, *Francois le Champi*, or their equivalents—Three Terms. The grammar part will be taught by talks.

II. The object of this course is to learn to read French with-

out translating it into English. The work in class will be carried on in French as much as possible. Books to be used: Augier et Sandeau, *Le Gendre de M. Poirier;* Alexander Dumas, *Le Capitaine Pamphile;* George Sand, *Le Petite Fadette*—Fall Term, 3 hours.

III. In this course students will read Moliere's *Le Misanthrope* and *Le Tartuffe* in class, and they will be required also to bring into class written resumés of other plays of Molière. Fall Term, 2 hours.

IV. Racine's *Athalie* and *Berenice* will be read and commented upon in class, and a few plays will be read as home-reading. Winter Term, 2 hours.

V. Some of Corneille's plays will be read and explained in French. A few of La Fountain's fables will be committed to memory. During this term attention will be given to the historical part of French grammar. Spring Term, 2 hours.

VI. In this course, which extends over two terms, the French literature of the 17th century will be discussed. Some of the works of the French writers of this period will be read at home. Fall Term, 2 hours. Winter Term, 2 hours.

VII. The spring term will be devoted to studying historical French grammar, based on *Brachet's Grammaire Historique de la langue francaise.* Spring Term, 2 hours.

GERMAN.

I. The elementary course will aim at reading ordinary German prose at sight, and at getting a knowledge of the essential part of German grammar. Books to be used: Zschokke's *Neujahrsnacht;* Eichendorffs *Taugenichts;* Fougùe's *Undine;* Some of P. Heyse's shorter stories. Through the year, 5 hours.

II. Historical works will be read, such as are to be found in the Neue Plutarch; Freytag's *Bilder aus neuer Zeit.* Winter Term, 3 hours.

III. Selections from the works of *Goethe, Schiller, Lessing,* etc., will be read and discussed without translating the lessons. Spring Term, 3 hours.

IV. Literature of the 18th century. Through the year.

V. Selections from Martin Luther's writings. Talks will be given on the history of German grammar, based on Brandt's historical German grammar. Winter Term, 2 hours. Spring Term, 2 hours.

VI. Middle high German will be taken up in this course. The grammar will be taught by talks. The class will translate into modern German Hartman von der Aue's *Der arme Heinrich; das Nibelungenlied*, etc. Fall Term, 2 hours. Winter Term, 2 hours.

ITALIAN.

I. Toscani's Grammar. Composition. I Promessi Sposi.

II. Grammar. Selections from Ariosto, Boccacio, Petrarca and Dante.

SPANISH.

I. Jose's Grammar. Composition. El Eco de Madrid, Gil Blas.

II. Grammar. Selections from Calderon, Lope de Vega. Cervantes.

ANCIENT LANGUAGES

LATIN.

The Roman method of pronouncing Latin is used.

Required—I. The work of the first year (3d Preparatory) comprises the translation of the first Book of Cæsar's Gallic War; the memorizing of selected passages and idioms; the reading at sight in class of passages afterwards carefully prepared; the translation of Latin sentences into English, and of English into Latin; and an outline study of Latin Etymology and Syntax.

The text books in this year are Comstock's First Latin Book, Kelsey's Cæsar, and Harkness' Standard Latin Grammar.

II. In the second year (4th Preparatory) Cæsar is read the first term and part of the second, (three Books); Sallust's Catiline follows Cæsar in the second term, and is continued two hours a week in the third term, with Latin Prose Composition three hours a week.

Text books, Kelsey's Cæsar, Harkness' Sallust, Jones' Latin Prose Composition.

FRESHMAN YEAR.

III. Cicero (three Orations)—first term—four hours. Harkness.

Cicero (three Orations)—second term—three hours. Harkness.

Composition—third term—two hours. Jones.

Ovid (extracts from the Metamorphoses)—third term—three hours. Lincoln.

SOPHOMORE YEAR.

IV. Virgil (Æneid, Books I and II)—first term—five hours. Greenough.

Virgil (Æneid, Books III, IV and V)—second term—five hours. Greenough.

Virgil (Æneid, Book VI, Eclogues)—third term—three hours. Greenough.

Elective.—1. Cicero, (Essays, De Senectute and De Amicitia) first term—two hours.

2. Horace (Odes)—first term—two hours.

3. Composition—first term—one hour.

4. Latin Literature—with selections from representative authors from the rise to the end of the classical period—second term—two hours.

5. Horace (Ars Poetica and selections from the Satires and Epistles)—second term—two hours.

6. Composition—second term—one hour. [6 can be taken only by students who have already had 3.]

7. Livy (Extracts from Books I to V, or Book XXI)—third term—three hours.

8. Terence (Andria or Adelphi)—third term—two hours.

9. Cicero (Tusculan Disputations, Book I)—first term—three hours.

10. Lucretius—first term—two hours.

11. Plautus (Captivi and one other Comedy at sight)—second term—three hours.

12. Cicero (Epistles); Pliny (Epistles); second term—two hours.

13. Tacitus (Annals)—third term—two hours.
14. Seneca (Moral Essays)—third term—two hours.
15. Christian Hymns—third term—one hour.

GREEK.

I.

1. Historical Selections—Xenophon and Herodotus.
4. Demosthenes.
7. Homer's Iliad.
10. Greek Drama.
13. Greek Testament.
16. Greek Literature.
19. Hebrew.

II.

2. Historical Selections—continued.
5. Plato's Apology and Crito.
8. Homer's Odyssey.
11. Greek Drama.
14. Greek Testament.
17. Greek Literature.
20. Hebrew.

III.

3. Lysias and Isocrates.
6. Thucydides—Speeches in.
9. Pindar.
12. Plato, Phædo, or the Tenth Book of the Laws.
15. Greek Testament.
18. Greek Literature.
21. Hebrew.

The above courses in Greek, and in Hebrew, are arranged according to the succession of terms in which they regularly come—"I," Fall Term: "II," Winter Term; and "III," Spring Term. The numerals 1, 2, 3, indicate the courses of the Freshman year; 4, 5, 6, those of the Sophomore year; 7, 8, 9, those of the Junior year; 10, 11, 12, those of the Senior year. From 13 on, the courses are collateral or elective. Those from 7 to 12, that is, of the Junior and Senior years, are also elective. Course 1 is always to be taken first. To find the number of hours a week allotted to each course in each term, turn to the "Courses of Study."

The methods used in teaching are based upon a firm conviction that it is *not* best to make the work dry and difficult; that it *is* best to aim at a good reading knowledge for the student; to introduce him early to a large amount of reading; and to let his knowledge of the language grow largely out of the text itself, rather than be confined to the outside help of books. More minute study comes later, as the aptitude for it is developed.

Careful attention is given to matters of history, archæology, and mythology, related to the texts read.

There is, everywhere, a free use of maps and charts, of which the Department has a good and constantly increasing supply.

Collateral research is required at every stage of all parts of the work.

Philology is one recitation a week, running through the year, beginning with the facts, and proceeding from them to the principles.

In Hebrew the same principles and methods govern as in Greek.

MATHEMATICS.

The Preparatory work covers the completion of arithmetic, three terms in algebra, and two terms in geometry.

The following courses are provided in the collegiate department:

1. Advanced Algebra—a course of *five hours*. Fall Term.
2. Solid and Spherical Geometry—a course of *four hours*. Winter Term.
3. Application of Algebra to Geometry, and Original Geometrical Demonstration and Solution—a course of *four hours*. Spring Term.
4. Plane and Spherical Trigonometry—a course of *five hours*. Fall Term.
5. General Geometry—a course of *five hours*. Winter Term.
6. Differential and Integral Calculus, with their applications to Geometry and Physical Science—a course of *five hours*. Spring Term.

7. Advanced Calculus—a course of *three hours*. Fall Term.

8. Advanced Calculus—a course of *three hours*. Winter Term.

9. Modern Higher Algebra, including Determinants—a course of *two hours*. Spring Term.

10. Quaternions—a course of *three hours*. Fall Term.

Courses 1, 3, 5 and 6, may be elected by students in whose General Courses they are not required studies.

ASTRONOMY AND APPLIED MATHEMATICS.

ASTRONOMY.

1. A course of three hours, during the fall term, in descriptive astronomy.

2. A course of three hours during the winter term, being a continuation of the above, with special attention to the description and use of astronomical instruments and the simpler mathematical reductions.

Elective.—A course of three hours per week during the entire year, including a large amount of practical work in the Observatory, solar and lunar eclipses, observations and reductions for obtaining time, latitude, longtitude, etc., etc.

Students desiring to do more advanced work will be given special direction in various lines of investigation, and will be granted free use of the observatory equipment in the prosecution of their studies.

PHYSICS.

1. A course of three hours during the fall term in elementary work covering Mechanics, Hydrostatics and Pneumatics.

2. A course of four hours during the winter term in Electricity and Magnetism, Optics, Heat and Acoustics.

3. With the Sophomore class, a course of three hours in the winter term and three hours in the spring term, largely mathematical in treatment, and covering the same general outline of topics as in the above elementary course.

Elective.—A course of three hours extending through the entire year, and covering such topics as may be especially chosen by students electing advanced work in physics.

SURVEYING.

Elective.—A course of three hours during fall term in practical surveying. Land, Railroad, Leveling, Topographical Plotting, Field work.

CHEMISTRY.

Required.—1. Chemistry of the Non-Metals three times per week, together with Laboratory practice in the grouping and separating of Metals and Acids, two days each week and two hours each day, fall term.

Electives.—2. Qualitative Chemical Analysis, winter term, Laboratory practice two hours each day of the week.

3. Organic Chemistry, Laboratory work two hours per day, three days each week, spring term.

4. Mineralogy, descriptive and determinative; Laboratory work two hours per day, three days each week, spring term.

5. Sanitary Science, lectures three times each week. This course will be given the fall term of 1889, but not in 1888.

6. Geology, Dynamical and Historical, four times each week.

7. Advanced work in the above courses will be given to students showing special proficiency.

Students expecting to teach will be given work to prepare them in chemical manipulations, the care and management of a Laboratory, etc.

BIOLOGY.

Required.—As preparatory to the College work, a term's work each in Human Physiology and Systematic Botany is taught.

In Freshman Year all students are required to take Zoology, four hours. Study from actual specimens is carried on as far as possible, spring term.

Electives.—1. Microscopy, the practical study of the use of the Microscope in Biological Research. Each student is furnished with a Compound Microscope and other appliances for the preparation and mounting of objects for study; winter term, two hours each day, three days each week.

2. General Biology, in which underlying principles are discussed and low forms of life, both animal and vegetable,

studied. Two hours of Laboratory work each day, and three days per week, fall term.

3. Animal Biology, a continuation of Course 2. Laboratory work two hours per day, three days per week; spring term.

4. Vegetable Biology also a continuation of Course 2, in which several type forms of vegetable life are studied. Laboratory practice two hours a day, three days; spring term.

5. Research Class, for the discussion of current Biological topics, reviews of periodical literature, etc., will meet once a week, and a class will be formed, during any term, when a sufficient number apply for it.

It is desirable that Course 1 should be taken before 2, 3 and 4, and Course 2 must precede 3 and 4.

In Courses 2, 3 and 4, students are required to (a) collect their material as far as practicable, (b) observe and study the object itself, (c) make careful notes on all points observed, (d) make drawings of separate structures and diagrams showing their relations to other structures, and (e) embody the knowledg thus obtained, and no other, in a written account.

Students who show special proficiency in Courses 2, 3 and 4 may continue the work as Collateral Research.

HISTORY, POLITICS AND ECONOMICS.

Students desiring to take any of the work here laid out must have been credited with at least five hours in U. S. History and ten hours in General History.

1. Modern Political History of Continental Europe. Lodge. Special attention given to the Rise and Decline of the Ottoman Empire, and to the Rise of Prussia and Russia. Three hours per week, 1st and 2nd terms.

2. Modern English History. The time will be spent chiefly on the period from 1830 to the present date. Four hours first term.

3. History of Civilization. Guizot. Three hours 2nd and 3rd terms.

4. Constitutional History of the United States. Von Holst. Two hours 1st term, three hours 2nd term.

5. Constitutional History of England. Gneist. Considerable attention given to recent changes in the Constitution of the British Empire Four hours 3rd term.

6. Political Economy. Walker. Three hours 1st and 2nd terms.

7. International Law. Davis. Prominence given to contemporaneous questions. Four hours 3rd term.

8. Political Science. Blemtschli. Reports by students on standard authorities on the subject. Two hours first term, three hours 3rd term.

9. A Research Class will be formed for work in Politics and Economics, during the first and second terms. Studies carried on involving, as far as possible, the use of original authorities; reports will be given upon books and articles from the periodicals; suggestions made as to best methods of work, etc. In the third term the work will consist chiefly of studies from the periodicals on current topics. Credits, from one to three hours, at the discretion of the Instructor in charge.

NOTE.—Courses 4–8 will be given only in alternate years. See table of studies.

Instead of any of the above, other courses may be given, if from any cause such change should seem desirable.

Only such students will be admitted to the Research Class as, in the judgment of the Instructor, are prepared to prosecute the work successfully.

ENGLISH.

The College has just instituted a comprehensive English Course, for admission into which four years of High School work will be required. The main feature of this Course is the introduction of a large amount of English work, embracing a very full study of the English Classics, the structure and literature of our English tongue, with an unusual amount of Historical Research. Special attention will also be given to the Anglo-Saxon Transitional English, etc. It is proposed to make the Course very comprehensive to meet the wants of students who, graduating from the English Course of any of our High

Schools, desire to pursue the same line of study to a much greater extent.

PHILOSOPHY.

Required.—I. Psychology—Cocker's Handbook of Philosophy will be used, accompanied by familiar lectures with ample elucidations. Analysis of Mental Phenomena and Faculties specially insisted upon—first half of the year.

II. Logic—Inductive and Deductive—The identity of fundamental principles explained, and the special office of each form of Logic given. For outlines of the subject, Jevons; for fuller study of special subject, Mill—half a year.

Electives.—III. History of Philosophy.—This must be preceded by Psychology in order that there may be a standard of Philosophy in the mind of the student with which to compare the theories advanced by the different Schools. A thorough analysis of each school will be presented, with the two-fold aim of learning the History of Philosophic Thought, and determining what is true in the different systems studied. The first half of the year—several works used.

IV. Moral Science.—The fundamental principles will first be considered, then their application to human life. This study follows Psychology, and is pursued in the latter half of the year. Four-fifths of a term—Calderwood and Porter.

V. Theism—Bowne used as a text book—taught during the Spring term.

CHAPTER XVI.

FOUR YEARS' MUSICAL COURSE.

FIRST YEAR.

GRADE I.—First part of Instruction Book—(New England Conservatory, or Mason & Hoadley), studies by Gurlitt, Loeschhorn, Biehl.

GRADE II.—Kohel Op. 50 Duvernoy Op. 120. Loeschhorn Op. 65. Eschman studies.

SECOND YEAR.

GRADE III.—Bertini Op. 26–32. Czerny Op. 336. Loeschhorn Op. 66.—Books 1 and 2 Heller Op. 47.

GRADE IV.—Czerny Op. 299. Loeschhorn Op. 66.—Book 3. Heller Op. 16.—1st Book. Berens Op. 61. Krause Op. 5. Kohler Op. 128—1st Book.

THIRD YEAR.

GRADE V.—Czerny Op. 409 and 740. Loeschhorn Op. 67.—1st Book. Heller Op. 16—2nd Book. Kohler Op. 128—2nd Book.

Harmony, through the year.

GRADE VI.—Loeschhorn Op. 67—2nd and 3rd Books. Loeschhorn Op. 118. Cramer's studies. Bulow's Ed.—1st Book.

FOURTH YEAR.

GRADE VII.—Cramer's Studies.

Chopin Op. 10.

Moscheles Op. 70.

Haberbier Studies, Poesies.

Clementi—*gradus et parnassum.*

Harmony, through the year.

Text Books in Harmony—Parker's Theory, Richter's Manual of Harmony, and Richter's Counterpoint.

Musical form by Cornell.

SIX YEARS' MUSICAL AND LITERARY COURSE.

[On completion of this course the degree of Bachelor of Music is conferred.]

FIRST YEAR.

First part of Instruction Book, (New England Conservatory Method, or Mason & Hoadley's Instruction Book.)

Studies by Gurlitt, Biehl, Loeschhorn, Duvernoy.

Rhetoric, Civil Government, U. S. History, European History, American Literature, Elementary Physics—25 hours.

SECOND YEAR.

Studies by Bertini, Czerny, Loeschorn, Kraus, Eschman.

French the whole year, English Literature, History of the Reformation, Physiology—25 hours.

THIRD YEAR.

Studies by Czerny, Heller, Bertini, Loeschhorn.

German the whole year, History Roman Empire, Grecian History, Acoustics—25 hours.

FOURTH YEAR.

Studies by Heller, Loeschhorn, Cramer.

Advanced Rhetoric, Elocution or English History, Italian through the year, Harmony through the year—20 hours.

FIFTH YEAR.

Studies by Moscheles, Haberbier and Clementi.

Harmony and Counterpoint through the year, Musical History, Italian Literature, French Literature, Middle Ages, German Literature, Musical Theory—20 hours.

Text Books of Harmony—Parker's Theory, Richter's Manual of Harmony, and Richter's Counterpoint.

Musical Form by Cornell.

SIXTH YEAR.

Studies in the works of Listz, Chopin, Bach, Handel, etc.

Harmony and Counterpoint, Musical Form and Anaylsis.

Terminology.

Text Books—Richter, Weitzman, Cherubini, Bussler-Cornell, Matthews, Fillmore.

Psychology, Logic, Moral Science.

SIX YEARS' PAINTING AND LITERARY COURSE.

[On completion of this Course the degree of Bachelor of Painting is given. The painting without literary studies can in most cases be completed in five years.]

FIRST YEAR.

Drawing from flat and simple objects with charcoal and pencil. Drawing outline of cast. Shading from flat and simple objects in charcoal. Rhetoric, American Literature, Civil Government, Elementary Physics, U. S. History—25 hours.

SECOND YEAR.

Drawing from objects or casts. Shading in charcoal, crayon and India Ink. Sketching from nature in charcoal. Painting from flat and still life. Anatomy and Physiology, English Literature, History of the Reformation, French through the year —25 hours.

THIRD YEAR.

Shading from cast in crayon. Shading from cast in monochrome. Sketching from nature. Painting from still life and from nature in monochrome and color. Grecian History, Roman Empire, German through the year, Microscopy—25 hours.

FOURTH YEAR.

Outlining of human figure. Mixing of colors. Simple grouping and designing. Painting from nature. Art History, Art Literature, Art Biographies, French and German—20 hours.

FIFTH YEAR.

Drawing and shading from human form. Drawing from human form and shading in monochrome. Painting from nature. Broadhand Painting. Painting from human figure and from nature. Italian through the year, Art Criticism, French Grammar and Italian Literature—20 hours.

SIXTH YEAR.

Painting from nature. Painting from life. Composition and design. Methods adopted by the old masters, methods adopted by modern painters, etc. Psychology, Logic, Moral Science.

We desire all students to take up literary studies in connection with painting. No person can devote more than three or four hours a day exclusively to painting, and general scholarship should be sought by all.

CHAPTER XVII.

EXPENSES IN THE VARIOUS DEPARTMENTS OF THE INSTITUTION.

The Institution does not bid for patronage by claiming that the expenses are less than at any other college. It starts out

to supply that which is necessary for the best scholarship. A good deal of money is expended each year for appliances in all departments. The purpose is to allow of no defect which will stand in the way of scholarship. Securing this end an effort is made to keep the expenses at the lowest point consistent with the attainment of the end for which the student is in college. Consequently no extra charges are made—the general schedule covers them all. The Institution does not conduct a boarding hall, but the students are able to make arrangements for board at figures as moderate as college boarding halls ever charge, and, as a rule, obtain board of a better quality than is ordinarily produced on the old plan. Table board in private families usually costs from $2.25 to $2.50 a week. A large number of students organize boarding clubs, enabling them to reduce the rate to $2 or $1.75 a week. This is now quite a popular method of providing for board. There are other students who board themselves, expending perhaps one-half the cost of club board, and some even less. Furnished rooms can be rented usually at fifty or seventy-five cents a week for each student.

The following is a schedule of charges made by the Institution. It will be seen that, aside from music, painting and commercial studies, *the instruction is practically free*:

PREPARATORY SCHOOL.

Tuition	Free
Incidental Fee, per term	$ 5 00

ACADEMIC DEPARTMENT.

Same as in Preparatory School. When classified in the College the ordinary matriculation fee is charged.

COLLEGE.

Matriculation Fee, paid but once	$ 5 00
Tuition	Free
Incidental Fee per term	5 00
Graduation Fee	5 00

Students in Laboratory practice charged cost of material used.

Students using the microscope pay small rent.

CONSERVATORY OF MUSIC.

Matriculation in the Four Years' Musical Course	Free
Matriculation in the Six Years' Musical and Literary Course	$ 5 00
Instruction in Chorus Class	Free
Instruction in Rudiments of Vocal Music, per term	1 00
Incidental Fee, per term	2 50
Tuition, in class of three—on piano or organ	12 00
Tuition, in class of two—on piano or organ	14 00
Tuition, private lessons—on piano or organ	20 00
Tuition in Harmony—once a week	4 00
Voice culture—class of two	5 00
Voice culture—private lessons	8 00
Instruction on violin, cello, etc	9 00
Instruction on cornet, clarionet, flute, etc	6 00
Membership in the Orchestra	Free
Membership in the Band	Free
Use of Piano or organ—per hour, for term	2 00
Graduating Diploma	3 00
Students in the Six Years' Course in which Literary Studies are taken in connection with Music, pay, as incidental fee, per term	5 00
The same, for Graduating Diploma	5 00

It will be seen that class rates are much cheaper than private lessons, and until the student reaches the graduation year the instruction thus received is as profitable as by private lessons.

To students receiving instruction on the piano or organ who have not completed the Second Grade, there is a reduction of 25 per cent on the above rates.

SCHOOL OF PAINTING.

Incidental Fee per term	$ 2 50
Tuition in oil painting, water color, India ink, etc., per term	20 00
Single lessons	50

Working in brass—same rate as above.

In no case does the incidental fee exceed $5.00 per term,

though the student may be pursuing studies in several departments at the same time.

It will also be seen that no tuition is charged for instruction in literary studies, tuition being required only for instruction in music, painting, or commercial studies.

The matriculation and graduating fees are only one-half as much as charged by many institutions.

It will also be perceived that the charges for instruction in music depend on the class to which the student belongs, and the amount of instruction received. The schedule of prices ranges all the way from $4 to $20 or $30 a term. It is at the option of the student.

COMMERCIAL DEPARTMENT.

Tuition, full course, including all studies,

First term, in advance	$20 00
Second term, in advance	17 50
Third term in advance	12 50

Besides the regular course there will be classes to accommodate those who wish to take a special work in this department, as follows:

Book-keeping, per term, five hours a week	$ 5 00
Book-keeping, per term, three hours a week	4 00
Penmanship, per term, five hours a week	3 00
Penmanship, per term, three hours a week	2 50
Commercial Arithmetic, five hours a week	2 50
Commercial Law, three hours a week	2 00
Shorthand and Typewriting (full course)	30 00

BOOKS AND STATIONERY.

The books and stationery required in the Commercial Department are for sale in the School at very low prices, and for the entire course will cost $10 or $15.

PART IV.

CATALOGUE OF ALBION COLLEGE.

CORPORATION.

TRUSTEES.

L. R. FISKE, LL. D., *ex-officio*, President, Albion.

ELECTED BY THE DETROIT CONFERENCE.

Name.	*Residence.*	*Term Expires.*
Hon. H. M. Loud,	Oscoda	1888
Otis A. Critchett, A. M.	Monroe	1888
Rev. J. S. Smart, D. D.,	Albion	1889
Horace Hitchcock	Detroit	1889
Rev. H. C. Northrup, A. M. B.D.	Lapeer	1890
John M. Hall, A. M.	Flint	1890

ELECTED BY MICHIGAN CONFERENCE.

Hon. H. E. Staples	Whitehall	1888
Rev. W. H. Brockway, Vice Pres.	Albion	1888
Rev. Amos M. Gould, B. D.	Ionia	1889
M. R. Bissell	Grand Rapids	1889
Rev. Levi Master, A. M.	Kalamazoo	1890
James W. Sheldon, Treas	Albion	1890

ELECTED BY THE SOCIETY OF ALUMNI.

Rev. J. W. Hallenbeck, A. M	Portland	1888
Reuben E. Clark, A. M	Chicago	1889
David Knox, A. M	Three Rivers	1890

ENDOWMENT FUND COMMITTEE.

Wm. H. Haze, M. D	Lansing	1889
Hon. Daniel Striker	Hastings	1892
S. P. Sidnam	Hastings	1895

ALBION PROVISIONAL BOARD OF CONTROL.

James W. Sheldon, Secretary and Treasurer.	Jacob Anderson.
Rev. W. H. Brockway.	Orlando C. Gale.
	Martin Haven.

SECRETARY OF BOARD OF TRUSTEES.

Samuel Dickie, M. S.....Albion.

BOARD OF VISITORS AND EXAMINERS.

APPOINTED BY SUPERINTENDENT OF PUBLIC INSTRUCTION.

Hon. George H. Hopkins.....Detroit
Hon. Frank Mills.....Lapeer
Supt. M. Louise Jones.....Charlotte

APPOINTED BY DETROIT CONFERENCE.

Rev. W. W. Ramsay, D. D.....Ann Arbor
Rev. James Venning.....Ypsilanti
Rev. Albert B. Storms.....Hudson

APPOINTED BY MICHIGAN CONFERENCE.

Rev. J. C. Floyd.....Big Rapids
Rev. S. Grosenbaugh.....Greenville

STANDING COMMITTEES FOR 1887-8.

EXECUTIVE COMMITTEE.

L. R. Fiske, W. H. Brockway, J. W. Sheldon, L. Master.

AUDITING COMMITTEE.

L. R. Fiske, W. H. Brockway, J. W. Sheldon, L. Master.

FINANCE COMMITTEE.

Horace Hitchcock, O. A. Critchett, H. M. Loud.

COMMITTEE ON FACULTY.

O. A. Critchett, Levi Master, M. R. Bissell.

COMMITTEE ON RULES AND REGULATIONS.

L. R. Fiske, A. M. Gould, H. E. Staples, John M. Hall.

COMMITTEE ON COURSES OF STUDY.

L. R. Fiske, J. W. Hallenbeck, H. C. Northrup, David Knox,

COMMITTEE ON LIBRARY AND APPARATUS.

Reuben E. Clark, J. S. Smart, F. M. Taylor.

COMMITTEE ON BUILDINGS AND GROUNDS.

L. R. Fiske, W. H. Brockway, J. W. Sheldon.

ASBURY CENTENARY ASSOCIATION.

OFFICERS.

President—Bishop Wm. X. Ninde, D. D., LL. D., Topeka, Ks.
Vice Presidents—

Pres. L. R. Fiske, D. D., LL. D.....Albion

Gen. Clinton B. Fisk.....New York
Hon. Thos. W. Palmer, A. M.....Detroit
Julius Berkey, Esq.....Grand Rapids
Secretary—Prof. Samuel Dickie, M. S.....Albion
Corresponding Secretary—Rev. J. S. Smart, D. D,.....Albion
Treasurer—James W. Sheldon, Esq.....Albion

BOARD OF MANAGERS.

The Bishops of the Methodist Episcopal Church and the Trustees of Albion College are, *ex-officio*, members of the Board of Managers.

MANAGERS ELECTED BY MICHIGAN CONFERENCE.

Name.	*Residence.*	*Term Expires.*
Rev. J. A. Sprague	Grand Rapids, Mich	1888
Rev. Levi Master, A. M	Kalamazoo,	1888
M. J. Bigelow, Esq	Kalamazoo,	1888
W. P. Sidnam, Esq	Hastings,	1888
Rev. D. F. Barnes, D. D	Kalamazoo,	1889
Rev. J. K. Stark	Reed City	1889
Wm. Van Loo, Esq	Big Rapids	1889
M. R. Bissell, Esq	Grand Rapids	1889
Rev. Geo. S. Hickey, A. M	Jackson	1890
Rev. M. M. Callen, D. D	Lansing	1890
Hon. J. W. Moon	Muskegon	1890
D. W. Peabody, Esq	Hanover	1890
O R. Wilmarth, Esq	Grand Rapids	1890
Hon. Hampton Rich	Ionia	1890

MANAGERS ELECTED BY DETROIT CONFERENCE.

Rev. J. E. Jacklin	Bay City,	1888
Albert Miller, Esq.,	Bay City	1888
Marshall H. Godfrey, Esq	Detroit	1888
Rev. L. P. Davis, A. M	Detroit	1889
Rev. C. T. Allen	Pontiac,	1889
Hon. J. R. Whiting	St. Clair,	1889
F. R. Beal, Esq	Northville,	1889
Rev. Arthur Edwards, D. D	Chicago, Ill	1890
Rev. John McEldowney, D. D	Port Huron	1890
Rev. W. W. Washburn, D. D	Monroe,	1890
Hon. John Owen	Detroit,	1890
Hon. H. M. Loud	Oscoda,	1890
T. C. Owen, Esq	Detroit,	1890

BOARD OF INSTRUCTION.

LEWIS R. FISKE, PRESIDENT.

CARL. B. SCHEFFLER, DIRECTOR OF CONSERVATORY.

ROLLIN C. WELCH, SECRETARY.

REV. L. R. FISKE, D. D. LL. D.,
John Owen Professorship of Intellectual and Moral Philosophy.

REV. ROLLIN C. WELCH, A. M.
John Morrison Reed Professorship of Greek Language and Literature.

†REV. SAMUEL DICKIE, M. S.,
Ezra Bostwick Professorship of Astronomy.

DELOS FALL, M. S.,
David Preston Professorship of Biology and Chemistry.

Samuel O. Knapp Professorship of Geology and Mineralogy.

FRED M. TAYLOR, A. M., Ph. D.
History and Belles Letters.

CARL B. SCHEFFLER,
Piano, Harmony and Counterpoint.

SAMUEL D. BARR, A. M.,
Mathematics.

ROBERT S. AVANN A. M., Ph. D.,
Latin Language and Literature.

† Resigned.—Chair will be filled in June

FREDERICK LUTZ, A. M.,
Modern Languages.

STEWART F. GANUNG.
Piano and Organ.

E. JOSEPHINE CLARK, A. M.,
English Language and Literature.

MATTIE C. ELWOOD,
Drawing and Painting.

JENNIE A. WORTHINGTON,
Piano.

DELLA MORGAN,
Voice Culture.

G. W. STORMFELS,
Orchestral Instruments.

A. C. SWEEZEY,
Piano.

DWIGHT B. WALDO, Ph. B.,
Instructor.

DURAND W. SPRINGER, B. S.,
Principal Commercial Department.

W. J. McLEAN,
Teacher of Penmanship and Shorthand in Commercial Department.

FRED M. TAYLOR, A. M., Ph. D.,
Librarian.

REV. B. S. TAYLOR, M. D.,
Assistant Librarian.

STUDENTS IN THE COLLEGE.

RESIDENT GRADUATES.

Sella E. Arnold,.....B. A.....Albion

SENIORS.

Nunquam Non Paratus.

NAME.	COURSE.	RESIDENCE.
H. Victor Allen.....	lat sc	Albion
Joseph C. Cook,.....	cl.....	Flat Rock
Wm. T. Cook,.....	cl.....	Rolfe, Iowa
Lucius T. Gould,..... ...	cl.....	Belvidere, Ill
Anson E. Hagle,.....	sc.....	Albion
Jennie M. Houghtaling,.....	lat. sc	Oak Grove
Shelley B. Jones,.....	sc.....	Greenville
Charles M. Kimball,.....	sc.....	Martin
Elbert O. Mather,.....	cl.....	Albion
Joseph P. Mc Carthy,.....	cl.....	Oneida, N. Y
Mary C. Norris,.....	cl.....	Tekonsha
Bina C. Schall,.....	lat. sc.....	Albion
Herman C. Scripps,.....	cl.....	Detroit

Cl.—Classical. Lat. Sc.—Latin Scientific. Sc.—Scientific. Eng.—English.

JUNIORS.

Ad Astra per Aspera.

NAME.	COURSE.	RESIDENCE.
M. Maud Beard,	cl	Albion
Stella M. Coney,	lat sc	Albion
John F. Critchett,	lat sc	Monroe
Edward A. Edmonds,	lat sc	Tekonsha
Homer Folks,	cl	Hanover
Olive B. Hull,	sc	Albion
Luther E. Lovejoy,	cl	Albion
Sheridan F. Master,	cl	Kalamazoo
May A. Osborne,	cl	Albion
Ira D. Travis	lat sc	Alma
Will S. White,	lat sc	Flint

SOPHOMORES.

Ad Summum.

NAME.	COURSE.	RESIDENCE
Thomas M. Bell,	cl	Sharpton, Ont.
Maud Bristol,	lat sc	Albion
Nathan P. Brown,	cl	Howell
Ruth E. Coney,	lat sc	Albion
Palmer M. Dearing,	lat sc	Albion
James H. Delbridge,	sc	Albion
Hattie M. Doolittle,	lat sc	Albion
Elliot R. Downing,	sc	Ishpeming
Orrin D. Ellett,	cl	Layton's, N. J
Clarence A. Fiske,	cl	Albion
Etta Goss,	lat sc	Otsego
Myrtie E. Graves,	lat sc	Albion
Stella M. Heath,	lat sc	Dowling
Will L. Holmes,	cl	Eaton Rapids
Jane M. Laing,	lat sc	Palmyra
Mina Mudge,	sc	Hastings
Fred B. Mumford,	sc	Hanover
Harvey N. Ott,	lat sc	Albion
Emma Parsons,	sc	Hanover
Eugene C. Peirce,	cl	Clinton
Fisk M. Ray,	lat sc	Concord
May B. I. Smith,	cl	Detroit
Albert P. Stark,	cl	Mt. Pleasant
Zua W. Thomas,	cl	Albion
Edgar J. Townsend	sc	Litchfield
Kingsley Van Loo,	lat sc	Big Rapids
Ira T. Weldon,	sc	Mosherville

FRESHMEN.

NAME.	COURSE.	RESIDENCE
Lewis F. Abbott,	lat sc	Galesburg
Andrew Allison	sc	Sheridan
Jennie M. Armstrong	cl	Jackson
John L. Austin,	lat sc	Detroit
Elmer E. Ball,	sc	Albion
Rena S. Barber,	lat sc	Quincy
J. Edmund Barrell,	cl	Middleville
James H. Bartley,	sc	Albion
George R. Berkaw,	lat sc	Parma
Flora A. Bissell,	sc	Richland
May E. Bovee,	lat sc	Northville
Carrie M. Bruce,	cl	Albion
Smith Burnham,	lat sc	Climax
Jennie E. Campbell,	cl	South Haven
Kittie Carland,	lat sc	Corunna
E. R. Cunningham,	lat sc	Spring Arbor
Lillie L. Cutler,	sc	Ionia
Lizzie Eveleth,	lat sc	Corunna
Blanche C. Gould,	cl	Belvidere, Ill
Iola Belle Kennedy,	lat sc	Benton Harbor
Frank Laberteaux,	sc	Albion
E. Watson Laing,	cl	Albion
Mary R. Laing,	lat sc	Palmyra
Otis A. Leonard,	lat sc	Albion
Owen R. Lovejoy,	cl	Albion
Fred K. Mc Eldowney	lat sc	Detroit
M. Ellen Maxwell	cl	Mt. Pleasant
Belle Miller,	sc	Litchfield
Herbert W. Mumford,	sc	Hanover
Dollie G. Pierce,	lat sc	Utica
Irvin E. Robinson,	cl	Lansing
Ernest G. Rogers,	sc	Medina
Emma L. Rork,	Eng	Homer
Lydia M. Rork,	lat sc	Homer
Minnie A. Strong	lat sc	Vicksburg
Charles B. Warren	lat sc	Albion
Homer G. Warren	lat sc	Flint
Mary H. Welch	lat sc	Schoolcraft
Emma E. Wells	cl	Petosky
Fred N. Weyant	lat sc	Coral

Cora M. Winkler	cl	East Saginaw
George W. Wright	cl	Albion

Unclassified.

Robert J. Floody	sc	Albion

Students in the Preparatory School.

Fourth Year.

NAME.	COURSE.	RESIDENCE.
Lottie Allen,	Eng	Albion
Louis W. Anderson	lat sc	Albion
Edward A. Armstrong	cl	Detroit
John F. Arnold	cl	Albion
Frank W. Bross	cl	North Adams
Herbert A. Dewey	sc	Concord
Seymour C. Eslow	lat sc	Homer
John W. Fair	lat sc	Norway, L S
George B. Ferguson	cl	Albion
George W. Fisher	sc	Augusta
Libbie A. George	lat sc	Hanover
Stanley C. Griffin	sc	Albion
Harry Haze	Eng	Lansing
Alice Hoag	lat sc	Parma
Otto Inamato	cl	Hakodate, Jap.
Essie R. Kulp	lat sc	Otsego
Arthur L. Landon	lat sc	Albion
Edward R. Loud	cl	Albion
Mary E. Lyons	lat sc	Corunna
Louvenia Mayes	sc	Albion
Newell J. Morehouse	Eng	Albion
Rolland L. Parmeter	sc	Albion
Charles A. Phelps	Eng	Whitehall
Genieveve A. Rork	lat sc	Homer
Francis A. Scott	lat sc	Brown City
William T. Shaw	lat sc	Ishpeming
William H. Simmons	lat sc	Marshall
Dora E. Strickland	Eng	Albion
Allen J. Wilder	cl	Tekonsha
Charles S. Winans	lat sc	Chelsea
Lizzie M. Wright	lat sc	Albion

Third Year.

NAME.	COURSE.	RESIDENCE.
Frank E. Allen	cl	Albion
Rosa Ball	sc	Albion
John H. Bass	cl	Banfield
Carrie J. Billinghurst	sc	Rice Creek
Dresden Birtch	Eng	Oscoda
Alfred A. Briggs	sc	Saline
Eugene T. Carpenter	lat sc	Williamsb'g
Anna L. Dickey	Eng	Marshall
Byron G. Doolittle	sc	Tekonsha
Alice Encke	Eng	Albion
Wilbur D. Engle	cl	Eaton Rapids
Charles H. Fenn	cl	East Tawas
Selden B. Ford	sc	Walworth, N Y
Harold T. Graves	lat sc	Albion
James C. Graves	Eng	Sheridan
Luther B. Kenyon	sc	Albion
Neil M. Kerr	cl	Petrolia, Ont
Carrie Leeman	lat sc	Chelsea
Effie M. Manning	sc	Chesaning
Hattie B. Mayes	lat sc	Albion
Charles G. Maywood	lat sc	Midland
W. Scott Maywood	lat sc	Midland
Cora Alice Parsons	sc	Albion
Leslie I. Ray	lat sc	Ishpeming
Arthur H. Rockafellow	lat sc	Clare
Fred Schultz	lat sc	N. Lansing
Samuel Schultz	lat sc	N. Lansing
Jennie Seeley	lat sc	Evart
Edith Smith	sc	Albion
George R. L. Smith	cl	Detroit
Hattie B. Smith	lat sc	Springport
Zella Starks	lat sc	Rice Creek
Hartley W. Taylor	lat sc	Albion
Eva E. White	Eng	Lacota
Leland M. White	lat sc	Lacota
Lizzie M. Wilder	cl	Armada

Second Year.

NAME.	COURSE.	RESIDENCE.
William E. Aikin	sc	Sheridan
Isabel Case	sc	Albion
Jennie B. Chapman	sc	Fowlerville
Harlon G. Clark	sc	Laingsburg
Ezra A. Cross	lat sc	Caro
Clarence E. Deal	cl	Kalamazoo
Lucinda Dickey	cl	Marshall
Abram W. Duck	sc	Greenville
E. Clarence Dunning	cl	Albion
Walter I. Elmer	Eng	Harrisville
James B. Field	cl	Frontier
Sabra E. P. Herron	sc	Detroit
Sidney Hull	sc	Albion
Frank U. Jones	sc	Vandalia
Hattie A. Lovejoy	Eng	Albion
Henry H. Merriman	lat sc	Lowell
Maggie L. Miller	Eng	Albion
Annie P. Mitchell	sc	Marquette
Carl W. Morehouse	sc	Albion
George Glenn Newell	sc	Grand Rapids
Ralph M. Newman	sc	Jackson
Katie Roode	Eng	Albion
Ella S. Schall	Eng	Graceville, D T
Anna Scotten	sc	Plymouth
John W. Sheehan	Eng	Somerset, N Y
William H. Spence	cl	Detroit
Fred P. Sprague	lat sc	Vermontville
Leslie H. Squier	cl	Bryon Center
Herbert W. Thompson	cl	Grand Rapids
Ollie B. Van Horn	lat sc	Dowling
Oscar B. Warren	cl.	St. Joseph
Fred N. Wright	sc.	Albion

First Year.

NAME.	RESIDENCE.
Lulu Andrews	Albion
Martha A. Brockway	Albion
Guy M. Canfield	Detroit
Jennie M Carus	Pennfield
Annie L. Ferguson	Long Rapids
Belle Fiske	Albion
Homer Ford	Albion
Casper J. Fow	Banfield
Wm. J. Freeborn	Donaldson
E. Adell Gilmer	East Leroy
Claude Goodrich	Albion
Clyde Holmes	Grand Rapids
John C. Jewell	Jackson
Cory L. Licklider	Piqua, O
Kate M. Marsh	Albion
Vernon Mayes	Albion
James D. McDonald	Pickford
Myrtie E. McGregor	Davis
John E. Mealey	Detroit
Grace Miller	Frankfort
Herbert E. Nowlin	Albion
Blanche S. Percy	Brooklyn, N Y
Fred E. Smith	Springport
John B. Tappan	Chicago, Ill
Mamie R. Taylor	Dewitt
Renfrew A. Wightman	Albion

ACADEMIC STUDENTS.

NAME.	RESIDENCE.
Fred C. Adams,	Tompkins
Maude Alsdorf,	Albion
Clifton G. Atherly,	South Haven
William L. Barth,	Cincinnati, O
H. W. Bartlett,	Springfield
Carrie M. Bentley,	Davis
Alice H. Brockway,	Johnsville
Wilber S. Burns,	Albion
Aggie L. Collins,	Waterloo
John F. Chambers,	Cheboygan
Maude Covert,	Midland City
Adam Clark,	Charlevoix
Maude H. Davis,	Peoria, Ill
Nellie A. Dayton,	Albion
Frank E. Deming,	Homer
Holden A. DuBois,	Unadilla
Bertha E. Emmons,	Byron City
Thomas Evans,	Cornwall, Eng
Emsley M. Faulkner,	Crystal Valley
Frank Fenton,	St. Clair
James O. Ferguson,	Albion
Arthur J. Herron,	Detroit
Bertha D. Herron,	Detroit
Thomas W. Hill,	Detroit
Jennie E. Hubert,	Parma
William A. Knowles	Devereux
Emma Leeman,	Sharon
Adria E. Ludlow,	Devereux
Libbie Martin,	East Leroy
Burton C. Murray,	Albion
Lida Parce,	Albion
Benjamin Peckham,	Devereux
Anton H. Ravn,	Oscoda
Josie J. Robinson,	Albion
Cora E. Rodgers,	Springport

Jacob G. Ruoff,.... Philadelphia, Pa
Lant K. Salsbury, ... Brown Center
Mary M. Sackett... Sunfield
Ella A. Saxton, ... Litchfield
Thomas Saxton.... Litchfield
Lucille B. Scott, ... Dewitt
Dana A. Seaman,.... Bailey
Emma E. Seely, ... Evart
William E. Sheehan, ...Barkers
Merritt D. Shepard,.... Albion
C. Isadora Sherman, ... Homer
William T. Shaw,.... Detroit
Emma E. Slayton, ... Rice Creek
Delta N. Smith,.. Mosherville
Flora A. Smith, ... Meridian
Alfred A. Stevens, ...Albion
Laura M. Sticnhcomb, ... Marshall
Delbert L. Thomas,.... Burlington
Will H. Thorne,.... Ludington
Thomas Wallis, ... Hurley
Ezra O. Wightman Albion
Arletta M. Wilcox.... Eckford

Students in Conservatory of Music.

PIANO.

RESIDENT GRADUATES.

NAME.	RESIDENCE.
Emma Crittenden,....	Albion
Belle C. Smith....	Albion

GRADE VII—GRADUATING CLASS.

Lida H. Austin, ...	Morrice
C. Blanche Gould, ...	Belvidere, Ill.
LuElla Hartung, ...	Homer
Floy A. Robinson, ...	Albion
Lilla G. Smart, ...	Albion

Sara E. Shepard,... Farma
Della Sprague,. Grand Rapids
Lillian H. Smith,... Albion
Lola L. Todd,.. San Francisco, Cal.

GRADE VI.

Mary L. Barnes,.... Albion
Mrs. N. G. Bennett Jackson
Lizzie Cook, ...Homer
Georgie M. Gale, ... Albion
Minnie E. Henry,.... Hastings
Hattie L. Ives, ...Plainwell
Lillian E. Kirk, ... Howell
Matie E. Lownsbery, ...Albion
E. May Moses, ... Seneca Falls, N. Y.
Carrie E. Mershom, ... Pritchardviile
Bida A. Marsh, ... Albion
Belle Murray,.... Homer
Georgena D. Peabody, ... Hanover
Tilly Weil, ...Jackson
Katie Whitaker, ... Concord

GRADE V.

Mrs. Permelia Bruce,.... Albion
Mrs. G. A. Bolster, ...Albion
Carrie M. Bentley, ... Davis
Maud E. Carr, ...Eaton Rapids
Nettie A. Carr, ... Eaton Rapids
Ida M. Engle, ...Eaton Rapids
Anna E. Hull,.. Albion
Minnie Heliker, ... Burlington
Eva L. Marzolf, ... Cato
Millie M. Millard,.... Spring Lake
Aurora Monroe, ...Minneapolis, Minn
Nellie Miller, ... Marshall
John M. Pearson, ... Milford
Mrs. Stoepel, ... Albion
F. Maggie Tuttle Walled Lake

Emma L. Warren,... Albion
Lizzie M. Wright, ... Albion

GRADE IV.

Anna Blackmar, ... Napoleon
Blanche Bunday,... Albion
Allie Cotton... Albion
Loui Doust Ellis,.. Eaton Rapids
Belle Fiske,.... Albion
Lida Goold, ... Midland
Carrie F. Gauss, ... Palo
Lulu D. Keller, ...Albion
Mary Koons,... White Oak
Effie M. Manning,... Chesaning
Birdie E. Power, ... Wixom
Genevieve A. Rork, ...Homer
Daisy A. Rogers, ... Medina
Adelle Stevens,.... Parma
Lucille B. Scott, ... Dewitt
Hattie Strong, ... Wacousta
Jennie E. Seeley, ... Evart
Laura M. Stinchcomb, ... Marshall
Mamie R. Taylor, ...Tompkins
Cora M. Winkler,.... East Saginaw

GRADE III.

Martha A. Brockway,.... Albion
Mattie Crittenden,... Albion
Stella M. Coney, ...Albion
Anna L. Dickey, ...Jackson
Clarissa B. Dickie, ...Albion
Charles A. Gifford,... Eaton Rapids
Winifried L. Gale, ...Albion
Bertha D. Herron,... Detroit
Susie B. Inglesbe, ...Sodus
Minnie O. Lewis,.... Litchfield
Grace Miller,.... South Frankfort
Della Morehouse,.... Albion

Charles G. Maywood,.... Midland
Lulu Rouse, ...Homer
Jessie M. Shepard, ...Albion
Annie Scotten, ... Plymouth
Carrie B. Savage, ...Litchfield
Lilly Snyder, ... Hanover
Stanton E. Troxel, ...Schoolcraft
Maud Van Horn, ... Dowling

GRADE II.

Cora E. Ball, ...Albion
Carrie M. Bruce, ... Albion
Lillie L. Cutler, ... Ionia
Maggie L. Cole, ... Albion
Maud E. Conant, ... Parma
Mabel Cunningham,... Homer
Helen A. Davis,.... Albion
Bertha E. Emmons,.... Albion
Rhoby D. Herron, ...Detroit
Hattie E. Lovejoy, ... Albion
Alta Oldman, ...Albion
Katie Roode,.. Albion
Lee Rouse, ...Homer
Bessie Sovereign, ...Chicago, Ill.
R. A. Wightman, ...Albion

GRADE I.

Charles B. Gale,... Albion
Mrs. S. H. Godfrey,.... Parma
Alice Hamlin, ...Albion
Artinsia Kile, ...Battle Creek
Nina Mowrey, ... Pritchardville
Maddie Murray, ... Albion
Hattie A. Nealey, ... Pulaski
Emma E. Seeley, ...Evart

VOICE.

Lulu Andrews,.. Hickory Corners

Dresden Birtch, ... Oscoda
Anna Blackmar, ...Napoleon
Permelia Bruce, ... Albion
Carrie M. Bruce, ... Albion
Lottie M. Cooper,... Battle Creek
Maud Covert,... Midland
Emma Crittenden,... Albion
Chas. Colby,.... Albion
Willie L. Dunbar,... Jackson
Anna L. Dickey, ... Jackson
E. R. Downing,.... Ishpeming
Bertha E. Emmons,.... Albion
Alice Encke, ...Albion
E. L. Faulkner, ... Crystal Valley
Silas Frankhauser, ... Litchfield
Robert J. Floody, ... Albion
Addie B. Floody,.. Albion
Homer Folks,.. Hanover
Chas. B. Gale, ...Albion
Jennie M. Galloway, ... Dundee
Carrie F. Gauss,.... Palo
Lida J. Goold, ... Midland
Anna B. Hull,..... Albion
Minnie E. Henry, ... Hastings
Harry A. Haze, ... Lansing
Will Hinebaugh, ...Litchfield
Lu Ella Hartung,.... Homer
Hamilton Hewett, ... Marshall
William T. Hill,.... Detroit
Jennie M. Houghtaling, ...Oak Grove
Lulu D. Keller,.... Albion
Hattie O. Lovejoy, ... Albion
Minnie O. Lewis,... Litchfield
Matie E. Lownsbery,... Albion
E. May Moses,.... Seneca Falls, N. Y.
Effie M. Manning, ... Chesaning

Eva L. Marzolf,.... Cato
Grace Miller,.... South Frankfort
Belle Miller, ... Litchfield
W. Scott Maywood, ... Midland
Charles G. Maywood, ... Midland
Bida A. Marsh, ... Albion
Louvenia Mayes,.... Albion
N. J. Moorhouse, ... Albion
Bertha Parce, ...Albion
Leslie J. Ray,... Ishpeming
David A. Rogers,.... Medina
Arthur Rockafellow, ...Clare
Lee Shank, ... Albion
Fred. Sackett,.... Albion
Ned. Sackett, ... Albion
Adelle Stevens,... Parma
Anna Scotten, ... Plymouth
Carrie B. Savage, ...Litchfield
Emma E. Seeley, ... Evart
Della Sprague,.... Grand Rapids
Laura M. Stinchcomb, ... Marshall
Clara F. Springer Shelby
F. P. Sprague, ...Vermontville
C. N. Sprague, ...Vermontville
Charles Scott, ...Albion
Mamie R. Taylor, ... Tompkins
Lola L. Todd,.. San Francisco, Cal.

HARMONY.

Lida H. Austin,.... Morrice
Parmelia Bruce, ... Albion
Carrie M. Bentley,.. Davis
Mary L. Barnes, ... Albion
Emma Crittenden,... Albion
Maud Covert, ... Midland
Lizzie Cook,.. Homer
Maud E. Carr Eaton Rapids

Loui Doust Ellis, ...Eaton Rapids
Ida M. Engle,.. Eaton Rapids
Belle Fiske,.. Albion
Lida Gould, ...Midland
Georgie M. Gale, ... Albion
Blanche Goold,... Belvidere, Ill
Carrie F. Gauss, ...Palo
Anna E. Hull,... Albion
Minnie E. Henry,.... Hastings
Lu Ella Hartung, ... Homer
Minnie Heliker, ... Burlington
Hattie L. Ives,.. Plainwell
Lulu D. Keller, ... Albion
Lillian Rork,.... Howell
Matie E. Lownsbery, ... Albion
E. May Moses, ...Seneca Falls, N. Y
Eva L. Marzolf, ... Cato
Millie M. Millard, ... Spring Lake
Belle Miller, ... Litchfield
Carrie E. Mershom, ... Pritchardville
Chas. G. Maywood,... Midland
Bida A. Marsh,... Albion
Nellie Miller, ... Marshall
John M. Pearson, ... Milford
Georgena D. Peabody, ... Hanover
Floy A. Robinson, ... Albion
Daisy A. Rogers, ... Midland
Lilla G. Smart,.... Albion
Hattie Strong, ... Wacousta
Sara E. Shepard, ... Parma
Della Sprague, ...Grand Rapids
Lucille B. Scott,.... Dewitt
Laura M. Stinchcomb, ... Marshall
Lillian H. Smith, ... Albion
Anna Scotten, ... Plymouth
F. Maggie Tuttle, ... Walled Lake

Lola L. Todd, ... San Francisco, Ca.
Stanton E. Troxel, ... Schoolcraft
Mamie R. Taylor, ... Tompkins
Lizzie M. Wright, ... Albion
Katie Whitaker, ... Concord
Emma L. Warren, ... Albion
Tillie Weil, ... Jackson

VIOLIN.

Bessie Bruce,.... Albion
Albert C. Blashfield, ...Albion
Maud Covert,.... Midland
Arthur P. Corliss,.. Albion
Roger Cotton, ... Albion
Fannie Dissette,.... Albion
John Fritz, ...Albion
Willie Haight,.... Albion
Chas. Jeffres,.... Albion
Leon Jacobs, ... Albion
Oto V. Kern,.... Homer
Cora Mayes, ... Albion
Benton C. Murray,.... Albion
Mrs. J. M. Moses,.... Marshall
Charles E. Noyes, ...Albion
Edna Pugsley, ... Albion
Carl Schumacher,.... Albion
Clara Smith,.... Albion
Mabel Smith, ... Albion
Lola L. Todd,.... San Francisco, Cal
Maud Van Horn,.... Dowling

CELLO.

Lottie E. Bruce,.... Albion

GUITAR.

William Barth, ... Cincinnati, O
Lottie M. Cooper, ...Battle Creek
Bida A. Marsh, ... Albion
Lillian Kirk,.... Howell

FLUTE.

Stanton E. Troxel,.... Schoolcraft

CORNET.

D. A. Seaman, ... Casnovia

Students in the School of Painting.

NAME.	RESIDENCE.
Bertha Andrews, ...	Flint
Mrs. Frank Allen, ...	Albion
Mrs R. S. Avann,....	Albion
Anna Blackmar, ...	Napoleon
Sarah T. Buswell, ...	Albion
Lottie Berry, ...	Albion
Mrs. L. T. Bradley, ...	Homer
Nettie Carr	Eaton Rapids
Lillie Cutler, ...	Ionia
Olive Colby, ...	Niles
Eva Engle, ...	Eaton Rapids
Belle Fairbank, ...	Litchfield
May Fanning, ...	Albion
May Foreman, ...	Charlotte
Mary Garfield, ...	Albion
Jennie Galloway, ...	Dundee
Mrs. Stephen Gregory, ...	Albion
Antha Jennings, ...	Eaton Rapids
Edith Landon, ...	Parma
Lizzie Landon, ...	Albion
Louise Lusk, ...	Marengo
Belle Miller, ...	Litchfield
Laura Marzolf, ...	Lake View
Belle McPherson, ...	Marengo
Margaret McPherson, ...	...Marengo
Mrs. D. Michaels,.....	Albion

Hattie Mayes,.... Albion
Irene Niles, ... Flushing
Geo. G. Newell, ... Grand Rapids
Annie Ott,.. Albion
Georgia Pattison, ...Marengo
Emma Rork, ... Homer
Mrs. W. T. Reed, ... Albion
Mary Rogers, ... Springport
Belle Smith,.... Albion
Zua Thomas, ... Albion
Mary Welch,.... Schoolcraft
Cora M. Winkler,.... East Saginaw

Students in the Commercial Department.

NAME.	RESIDENCE.
L. F. Abbott,....	...Galesburg
F. E. Allen, ...	...Albion
H. V. Allen,....	Albion
W. J. Armstrong,....	Mendon
C. G. Atherly,...	South Haven
J. L. Austin, ...	..Detroit
G. C. Ballantine, ...	Albion
H. W. Bartlett, ...	Springfield
G. R. Berkaw,....	Parma
Flora Bissell, ...	Richland
A. T. Boyd,....	Albion
B. P. Brockway, ...	Albion
Geo. A. Butt,.... Albion	
C. A. Campbell, ...	Parma
F. Isabel Case,....	Albion
J. F. Chambers, ...Cheboygan	
B. A. Clark, ...	May
Mrs. C. M. Cooley, ...	Albion
Maud Covert, ...	..Midland

J. F. Critchett, ... Monroe
E. A. Cross, ...Albion
Nellie Dayton, ... Albion
J. A. Dean, ... Parma
N. G. Dean,.... Parma
P. M. Dearing, ... Albion
H. A. Dewey, ... Concord
C. Doolittle,..... Albion
H. A. DuBois, ... Unadilla
E. A. Edmonds, ...Bellevue
W. T. Elmer, ...Harrisville
S. C. Eslow, ...Homer
J. W. Fair, ... Negaunee
E. L. Faulkner, ...Crystal Valley
G. W. Fisher,.... Augusta
C. A. Fisher, ...Albion
May L. Ford,.... Albion
W. J. Freeborn, ... Donaldson
A. E. Gallop,.... Grand Ledge
U. S. Garnsey, ...May
F. I. Goodenow, ... Albion
Lida Goold,.. Midland
J. C. Graves, ... Albion
A. E. Hagle, ... Albion
H. A. Haze,.... Lansing
F. E. Hubert, ... Parma
Susie Ingalsbe,.... Sodus
F. U. Jones, ... Montague
S. B. Jones,.... Greenville
A. J. Kellogg, ... Richland
H. J. Klose,.... White Pigeon
Anna Krapp, ... Albion
D. W. Knickerbocker,.... Albion
F. Laberteaux,.... Albion
F. E. Larzelere, ...Albion
O. A. Leonard,.... Albion
Minnie O. Lewis, ...Litchfield

Matie E. Lownsbery, ... Albion
E. M. Marsh,.... Albion
Y. C. Maynard, ... Marshall
Grace Miller,.... South Frankfort
Annie P. Mitchell.... Marquette
R. H. Olcott,.... Albion
Alta E. Oldman, ... Albion
C. D. Osborn,.... Albion
B. Peckham, ... Springport
C. A. Phelps,.... Whitehall
C. Rafter,... Albion
E. L. Rann, ... Morrice
F. M. Ray, ... Concord
Carrie B. Savage, ...Litchfield
T. Saxton,... Albion
F. Schultz, ... Lansing
S. Schult,.... Lansing
C. M. Seaman,... Bailey
D. Seaman, ... Bailey
M. Shepard, ... Albion
I. R. Shuart, ... Wacousta
Flora Smith, ... Lansing
May Smith, ... Detroit
G. R. Smith,.... Detroit
J. Steinkraus, ... Albion
G. W. Sweeney, ... Albion
I. B. Tappan, ... Milan, Ohio
K. Van Loo,.... Big Rapids
C. B. Warren, ...Albion
G. H. Welch,... Schoolcraft
A. J. Wilder, ... Tekonsha
C. Winans,.... Chelsea
Cora Winkler, ... East Saginaw

SUMMARY OF STUDENTS.

COLLEGE.

Resident Graduates,	1	
Seniors,	13	
Juniors,	11	
Sophomores,	27	
Freshmen,	42	
Unclassified,	1	—95

PREPARATORY SCHOOL.

Fourth Year,	31	
Third Year,	36	
Second Year,	32	
First Year,	26	—125
Academic,		57

CONSERVATORY OF MUSIC.

Resident Graduates,	2	
Piano,	106	
Violin,	21	
Guitar,	4	
Cello,	1	
Flute,	1	
Cornet,	1	
Voice Culture,	64	
Harmony,	51	—251

SCHOOL OF PAINTING.

Painting,	38

COMMERCIAL DEPARTMENT.

Commercial Students,	88
Total,	654
Deduct for Recounting,	203
Aggregate,	451
Members of the Orchestra,	50

Calendar for 1888-9.

1888.

June 12—Term Examinations begin.
June 13—Commencement Prayer-Meeting, 8 p. m.
June 17—Commencement Sunday.
June 18—Conservatory Day.
June 19—College Day—Meeting of Board of Trustees.
June 20—Alumni Day—Meeting of Board of Managers of the Asbury Centenary Association.
June 21—Commencement Day—Year closes.

OPENING OF THE COLLEGE YEAR.

Sept. 18—Examination of candidates for admission; also special examination of any students heretofore enrolled—9 a. m.
Sept. 19—Enrollment Day—Commencing at 9 a. m.
Sept. 20—Recitations begin—Chapel 9 a. m.
Dec. 14—Closing Examinations of Term begin.
Dec. 19—Term closes.

HOLIDAY VACATION.

1889.

Jan. 1—Entrance and Special Examinations, 9 a. m.
Jan. 2—Enrollment Day.
Jan. 3—Recitations begin—Chapel 9 a. m.
Jan. 24—Day of Prayer for Colleges.
March 25—Closing Term Examinations begin.
March 28—Term closes.

SPRING VACATION.

April 8—Entrance and Special Examinations.
April 9—Enrollment Day.
April 10—Recitations begin—Chapel 9 a. m.
June 27—Commencement Day, preceded by Exercises of Commencement week.

YEAR-BOOK

from

ALBION COLLEGE.

1888-89.

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YEAR BOOK

—OF—

ALBION COLLEGE,

—FOR—

1888-89.

ALBION, MICH.

PUBLISHED BY ALBION COLLEGE.
1889.

ROGERS & WIERSEMA, PRINTERS, ALBION, MICH.

ORGANIZATION AND GOVERNMENT.

Albion College was chartered by an enactment of the Legislature of the State of Michigan in 1861. The school was first opened as a Seminary in 1843, in accordance with the provisions of a charter granted in 1835 and amended in 1839. The corner stone of the first building was laid in June, 1841. In 1849 the charter was amended so as to create a Female College. In 1861 full college powers were granted by the legislature, so that for twenty-eight years it has been authorized to confer degrees without distinction of sex.

The general government of the institution is vested in a Board of Trustees, consisting of sixteen persons, six elected by the Detroit Conference of the Methodist Episcopal church, six by the Michigan Conference, and three by the Society of Alumni. With the foregoing the President of the college is associated as a member *ex officio*. The State appoints annually a Board of Visitors and Examiners to inspect the workings of the college, which Board makes a Report to the Superintendent of Public Instruction. Boards of Visitors are also appointed by both the Detroit and Michigan Conferences, and also by the Society of Alumni. A Centenary Board has been organized for consultation and advice, but without official authority—consisting of fourteen persons appointed by the Michigan Conference and a like number appointed by the Detroit Conference, who, united with the Bishops of the church, are depended upon for many valuable suggestions for the most successful workings of the institution.

In the interim of meetings of the Board of Trustees a certain measure of power is vested in an Executive Committee

consisting of the officers of the Board, who are also constituted an Auditing Committee.

The immediate government of the college is in the hands of the President and Faculty. The enrollment of the student carries with it obligations to perform the work assigned, and to live up to the spirit of the institution in study and deportment. The purpose of college life should be to secure scholarship, to broaden and culture the mind, and to build up noble character.

PART I.

LIVING EDUCATIONAL PROBLEMS.

SYMPOSIUM ON EDUCATION.

A Brief Statement of the Considerations that Prompt to the Gathering of the Symposium.—We are passing through an era of change in educational matters that is to prove the most revolutionary in human history. The results of invention and discovery that have been coming in from the whole field of human effort are just bringing their full influence to bear upon theories and methods of teaching. Nowhere is there complete satisfaction with the present state of things. Everywhere there is eager expectation and an intense striving for that best which it is felt must be the outcome of a movement so fundamental. It is of the utmost importance that the movement should be characterized as little as possible by mistake at vital points, by subordination of the greater to the less, by wasteful working at cross purposes.

The entire range of education, from primary school to university, has a character so organic, each part vitally connected with every other, and dependent upon it for its own healthy action and best results, that all must move on together. The work of organization cannot however end here, leaving the schools set off by themselves with no living relation to the world's great work, the world knowing little about them and caring less. This was the feature of the old system out of which nearly all of its evils grew, and it is against this that the spirit of the present reform is at war. It puts education in its true position, where it touches our well-being at all

points, and is in continual interference with our individual home, and social life; with our political and economic institutions; and our international relations. Families, citizens, business men must take it into their reckoning; it is here to be the making of us, for good or for evil. The organic whole of the schools must then be in living, sympathetic relation with the public, and the public with them. This can be only on the basis of common knowledge and conviction.

If then the state of the case in regard to facts and prevailing theories and methods could be kept before, not only educators but the general public even, so as to be a basis of judgment, sympathy and action, the result must be beneficent beyond all calculation. We believe we can contribute to this result by presenting a collection of opinions of those who are acknowledged leaders and molders of thought, or who are in a position to affect the course of events. A large part of the present Year Book is given to such a presentation.

We take first from an article by Ex-President White of Cornell University, in late numbers of The Forum, advocating the establishment of a great national university at Washington, some passages descriptive of the great reform that is in progress, and its special relation to university education.

THE GREAT REFORM AND ITS RELATION TO UNIVERSITY EDUCATION.

BY EX-PRESIDENT A. D. WHITE.

The Old.—President White first states the condition of American Universities about the middle of this century. The more salient points are: Professors few and poorly paid; money saved by requiring one professor to teach many different subjects, and also by the employment of tutors, for tutors came cheap. They heard recitations. He then says: "This, as a

rule, meant hearing young men give the words of a text book as nearly as possible, or construe Latin or Greek mainly from the inevitable surreptitious translation, the tutor rarely discussing the subject, but simply making a mark upon a private book to denote his view of the goodness or badness of each performance. This was probably the most woful substitute for education ever devised by the unwisdom of man. A few great men rose above it, but generally the aspirations of the best teachers were stifled in the atmosphere it engendered. The endowments, the equipments, the apparatus, the laboratories, were in harmony with the spirit of the patrons and with the teaching."

The New.—"Now all has been changed. The development in the higher education, even during the last twenty years, in the subjects taught, in the courses presented, in the number of professors, in libraries, laboratories, collections for illustration and research, and in buildings, has been enormous. The day when the function of a university was to force a great body of young men through the same simple illogical process vaguely called "mental descipline" is gone."

Courses and Appliances.—"There has come a demand for a far greater range of studies, giving not only fitting discipline but the highest knowledge needed in the various professions. There must be a large array of courses suited to the tastes and aims of different men. There must be libraries at which students may at least begin to investigate the best thought and acquisitions of every country in every field; laboratories in chemistry, physics, botany, biology, civil engineering, mechanical engineering, electrical engineering, and the like, where the votaries of various sciences may learn the best methods in every sort of research. There has come, too, a demand for specimens of practical use in every branch of natural science, and for collections of apparatus in which a single instrument sometimes costs more than the whole equipment of a department under the old system."

Professors' Salaries.—"There has come to be a large demand also for a large corps of professors, most of them specially trained, and who, if fit for much, must be paid large salaries. A leading professor has become a personage; various institutions compete for him, often raising his salary to a figure which once would have filled boards of trustees with dismay. It does not equal yet the sum customary among distinguished city clergymen, lawyers, presidents of banks or railroads, consulting engineers, and cooks of New York millionaires; but it is rapidly nearing those figures and it ought to do so."

Resources.—"To found an institution and call it a university, in these days, with an income less than a quarter of a million of dollars a year is a broad farce. Even with that sum many of the most important spheres of university activity must be neglected. Twice the amount is not more than adequate, and Harvary University, which has an income of more than twice that sum, is, at this moment, showing cogent reasons for demanding more, and the tendency is ever toward a greater expenditure.

This is neither to be scolded at nor whined over. Just as the material demands of this wonderful time have created vast hotel, steamships, and railway systems, so the moral and intellectual demands are creating great universities. One result is as natural and normal as the other; indeed all are parts of one great demand. The genlemen who propose to meet this demand in education by endowing colleges or universities no better equipped than the best of thirty years ago, are like men who should offer skiffs to persons wishing to cross the Atlantic, or gigs to those wishing to visit California."

THE "NATION" IN REPLY TO EX-PRESIDENT WHITE.

"Universities like all other things which grow and cannot suddenly be made to order, have to be planted in a congenial soil. They have, in other words, to strike their roots in a sympathetic community, which sets a high value on culture, and has a strong sense of its political and social importance. A university is, in large part, the product of the opinions and aspirations of the people who live around it." These are words which apply with equal force to schools of every grade, and strongly confirm what we have said of the absolute necessity that schools and their environment shall be wrought into one organic whole.

The Faculty is the University.—The reply in The Nation ends with an important statement bearing on another phase of the subject: "No university has anywhere become a great influence or anything but a school for children, which was not wholly or almost wholly in the hands of the Faculty, or teaching body. *The Faculty is the University.* If you have the right sort of a Faculty, you have a university, though you have only a tent to lecture in. If, on the other hand, you try to make a university out of a Board of sagacious business men acting as trustees, and treat the professors as simply "hired men," bound to give the university so many hours a week, you may have a very good school for youths, but you will get no enlightening influences or force out of it for the community at large. Instead of speaking with authority on any of the great themes of the day, the college will be sneered at, as colleges are apt to be in the United States to-day, as the home of theorists and pedants, whose impudence in differing in opinion from millionaries, merits and is sure to receive severe rebuke."

AMERICAN UNIVERSITIES.

BY JAMES BRYCE IN "THE AMERICAN COMMONWEALTH."

American Universities Classified.—"If we define a university as a place where teaching of a high order, teaching which puts a man abreast of the fullest and most exact knowledge of the time is given in a range of subjects covering all the great departments of intellectual life, not more than twelve and possibly only eight or nine of the American institutions would fall within the definition. Of these nearly all are to be found in the Atlantic States.

Next below these come some thirty or forty foundations which are scarcely entitled to the name of university; some because their range of instruction is still limited to the traditional literary and scientific course such as it stood thirty years ago; others, because, while professing to teach a great variety of subjects, they teach them in an imperfect way, having neither a sufficiently large staff of highly trained professors, nor an adequate provision of laboratories, libraries and other external appliances. The older New England colleges are good types of the former group. Their instruction is sound and thorough so far as it goes, well calculated to fit a man for the professions of law or divinity, but it omits many branches of learning and science which have grown to importance within the last thirty years. There are also some western colleges which deserve to be placed in the same category. Most of the western State Universities belong to the other groupe of this second class, that of institutions which aim at covering more ground than they are yet able to cover. They have an ambitious program; but neither the state of preparation of their students, nor the strength of the teaching staff, enables them to do justice to the promise which the program holds out. They are true universities rather in aspiration than in fact

Below these again there is a third and much larger class of colleges, let us say three hundred, which are for most intents and purposes, schools. They differ from the *gymnasia* of Germany, *lycees* of France, the grammar schools of England, and high schools of Scotland, not only in the fact that they give degrees to those who have satisfactorially passed through their prescribed course or courses, but in permitting greater personal freedom to students than boys would be allowed in those countries. They are universities or colleges as respects some of their arrangements, but schools in respect of educational results attained."

Sub-Classes.—"These three hundred may be further divided into two sub-classes, distinguished from one another partly by their revenues, partly by the character of the population they serve, partly by the personal gifts of the president, as the head of the establishment is usually called, and of the teachers.

Some seventy or eighty, though comparatively small, are strong by the zeal and capacity of their teachers, and, while not attempting to teach everything, teach the subjects which they do understand with increasing thoroughness. The remainder would do better to renounce the privilege of granting degrees and be content to do school work according to school methods."

Degrees.—"As regards the worth of the degrees given, there is of course the greatest possible difference between those of the better, and those of the lower institutions, nor is this difference merely one between the few great universities and the mass of small colleges or western universities, for among the smaller colleges there are some which maintain as high a standard of thoroughness as the greatest. The degrees of the two hundred colleges to which I have referred as belonging to the lower group of the third class, have no assignable value, except that of indicating that a youth has been made to work during four years at subjects above the elementary. Those of

institutions belonging to the higher group and the two other classes represent, on an average, as much knowledge and mental discipline as the poll or pass degrees of Cambridge or Oxford, possibly rather less than the pass degrees of the Scottish universities. Between the highest American degrees and the honor degrees of Oxford and Cambridge it is hard to make any comparison. A degree is in the United States given only to those who have followed a prescribed course in the teaching institution which confers it. No American institution has so far departed from the old and true conception of a university, approved by both history and policy, as to become a mere examining board, awarding degrees to anybody who may present himself from any quarter."

Safeguards Needed.—"However, the evils of existing arrangements, under which places below the level of German *gymnasia* are permitted to grant academic titles, are deemed so serious by some educational reformers that it has been proposed to create in each State a single degree-conferring authority to which the various institutions within the State should be, so to speak, tributary, sending up their students to its examinations, which would, of course, be kept at a higher level than most of the present independent bodies maintain. This is what physicians call a "heroic remedy;" and with all respect to the high authorities who now advocate it, I hope they will reconsider the problem, and content themselves with methods of reform less likely to cramp the freedom of university teaching."

Which are Free and Popular?—"One praise which has often been given to the universities of Scotland may be given to those of America. While the German universities have been popular but not free, while the English universities have been free but not popular, the American universities have been both free and popular. Although some have been managed on too narrow a basis, the number has been so great that the community have not suffered. They have been established so

easily, they have so fully reflected the habits and conditions of the people, as to have been accessible to every stratum of the population. They show all the merits and all the faults of a development absolutely uncontrolled by government, and little controlled even by the law which binds endowments down to the purposes fixed by a founder, because new foundations were constantly rising, and new endowments were accruing to the existing foundations. Accordingly, while a European observer is struck by their inequalities and by the crudeness of many among them, he is also struck by the life, the spirit, the sense of progress, which pervades them. In America itself, educational reformers are apt to deplore the absence of control. They complain of the multiplication of degree-giving bodies, and consequent lowering of the worth of a degree. They point to the dissipation over more than thirty colleges, as in Ohio, of the funds and teaching power which might have produced one first-rate university. One strong institution in a state does more, they argue, to raise the standard of teaching and learning, and to civilize the region which it serves, than can be done by twenty weak ones."

Mission of the Country College. — "The European observer, while he admits this, conceives that his American friends may not duly realize the service which these small colleges perform in the rural districts of the country. They get hold of a multitude of poor men, who might never resort to a distant place of education. They set learning in a visible form, plain, indeed, and humble, but dignified even in her humility, before the eyes of a rustic people, in whom the love of knowledge, naturally strong, might never break from the bud into the flower, but for the care of some zealous gardener. They give the chance of rising in some intellectual walk of life to many a strong and earnest nature who might otherwise have remained an artisan or storekeeper, and perhaps failed in those avocations. They light up in many a country town what is at first only a farthing rush-light, but which, when the town swells

to a city, or when endowments flow in, or when some able teacher is placed in charge, becomes a lamp of growing flame, which may finally throw its rays over the whole state in which it stands. In some of these smaller western colleges one finds today men of great ability and great attainments, one finds students who are receiving an education quite as thorough, though not always as wide, as the best eastern universities can give. I do not at all deny that the time for more concentration has come, and that restrictions on the power of granting degrees would be useful. But one who recalls the history of the West during the last fifty years, and bears in mind the tremendous rush of ability and energy towards a purely material development which has marked its people, will feel that this uncontrolled freedom of teaching, this multiplication of small institutions, have done for the country a work which a few state regulated universities might have failed to do."

No Menace to Higher Learning.—"The higher learning is in no danger. The great universities of the east, as well as one or two in the west, are already beginning to rival the ancient universities of Europe. They will soon have far greater funds at their command with which to move toward the same ideal as Germany sets before herself; and they have already what is better than funds—an ardor and industry among the teachers which equals that displayed fifty years ago in Germany by the foremost men of the generation which raised the German schools to their glorious pre-eminence."

The Final Impression.—"It may be thought that an observer familiar with two universities which are among the oldest and most famous in Europe, and are, beyond question, the most externally sumptuous and beautiful, would be inclined to disparage the corresponding institutions of the United States, whose traditions are comparatively short, and in whose outward aspect there is little to attract the eye or touch the imagination. I have not found it so. An Englishman who visits America

can never feel sure how far his judgement has been affected by the warmth of the welcome which he receives. But if I may venture to state the impression which the American universities have made upon me; I will say that, while, of all the institutions of the country, they are those of which the Americans speak most modestly, and indeed deprecatingly, they are those which seem to be at this moment making the swiftest progress, and to have the brightest promise for the future. They are supplying exactly those things which European critics have hitherto found lacking to America; and they are contributing to her political as well as to her contemplative life elements of inestimable worth."

THE FUTURE OF THE COUNTRY COLLEGE.

BY PRESIDENT HYDE, OF BOWDOIN COLLEGE.

The University and the College.—"The university is a new factor in American education. By university is meant, not a college with a euphonious but inappropriate title, nor yet faculties of law, medicine, and theology associated under the same government with the academic faculty, but an institution where all the leading lines of liberal learning are taught in their broad relations, studied in their minute details, and carried forward by original investigation. That the rapid rise of universities in the United States is destined to work great changes in our system of higher education is obvious. The university cannot supersede the college. The attempt to rear the university on the basis of the academy alone would be as absurd as to put the roof of a house directly on the foundation, with no intervening stories.

The university brings with it a new kind of a college. Hitherto we have had large colleges and small colleges, both

having essentially the same curriculum and spirit. Now we have the college connected with the university, and the college which stands by itself. The college connected with the university has the advantages of location in a center of culture, and has abundant wealth. Its university connection gives it fame and prestige, and the attraction of intellectual gravitation enables it to secure the choice scholars of the land for its professors."

The Country College—"How is it with the college which stands by itself? in a word, with the country college? The answer may be suggested by a plain statement of the comprehensive work of higher education.

That work is three fold, intellectual, moral, and religious. In each of these three spheres there are three stages. Corresponding to these stages are three institutions, the academy, the college, and the university.

The first stage of intellectual work is drill. This is the province of the classical academy. The classical academy withdraws its pupils from studies of immediate utility. It selects Latin, Greek, and Mathematics; partly, because these studies lie logically at the foundation of all the literature and science which the pupil will study in the college and the university, and partly because they afford a superior field for drill in the thorough masters of the fundamental principles of thought and expression. The college presupposes in its students the drill of the academy. Yet, to make sure of it, the college keeps up this drill during the Freshman year. For without this drill as a foundation no successful work in the latter part of the course is possible. Yet, even from the first, the aim of the college is radically different from that of the academy. No drill for its own sake, with its irksomness, its monotony, its slavery to a text-book, but knowledge in its most attractive, stimulating and practically valuable aspect, is the ideal which the college holds up before its students. Since the aims of the two institutions are so different, it is generally recognized that,

when possible, it is better for both academy and college that they be kept separate."

It is the province of the ***University*** to take men who have the drill of the academy and the breadth of view which the college gives, and helps them to carry forward self chosen lines of special study to the limits of the world's attained knowledge, and on into regions yet unexplored. Not the teaching how to walk, nor yet the easy and rapid journeying along the beaten paths of knowledge, but the exploration of fields remote from the main lines of ordinary travel, and the surveying of new territory, is the function of the university. The function of the university is thus as distinct from that of the college as is that of the college from the function of the academy. The same reason which has made it desirable to separate the academy from the college, will, in due time, render desirable a separation of the college from the university. Where the colleges are new, as in the West to-day, college and academy are united, but when colleges are old and well established, college and academy are separate. Universities are new throughout this country, and have grown up for the most part, in connection with colleges. But when universities become more definitely organized, the radical difference between the university and the college will become increasingly apparent.

The University College.—Even now a list of the principal universities having colleges connected with them would probably indicate that the more thorough and extensive the university work in any one of them, the less is there left of the college ideal; and vice versa, the more faithfully the college is adhered to, the less is the university ideal realized. The two aims, breadth and specialization, the acquisition of knowledge for the student's sake, and devotion to learning for the learner's sake, are two distinct stages of intellectual developement. Though the latter is unquestionably the higher, yet the former has its rightful time and place. The two aims cannot co-exist side by side, each in supremacy over its rightful field, and as the college

ideal is the lower and weaker in itself, it will inevitably yield to the university spirit. The broadening of the mind by an apprenticeship to the idea that there are many things which the student must learn before he can begin to be a scholar, which it is the the province of the college to foster, will be neglected, and we shall have the sorry sight of immature youths affecting to be scholars before they have learned to be students. Thus it is not the country college but the ***University College*** which has most to fear from the growth of the universities. The country college will continue to fit nine-tenths of her graduates for professional and business life, as she has done. The other tenth she will prepare for the universities; and the college which in these days fails to send from five to ten per cent. of its graduates on into university work is false to its students and false to the cause of education. The best use in the furtherance of higher education in New England to which two hundred and fifty thousand dollars could be put to-day would be the establishment of twenty-five fellowships in the country colleges of New England, enabling one or two in each college class to enter upon university studies. The stimulus to the colleges, and the support to the universities arising from such a system of fellowship would be invaluable; and it would impress students with the true and real relation of the college to the university, as no amount of mere explanation and exhortation can impress them. Intellectually the future of the college is assured, because it represents a distinct and essential stage of intellectual development, which none but the exceptionally endowed student can skip without serious and permanent injury; and the future of the country college is assured just because the more separate college and university are kept, the more helpful can they be to each other. They are members of an organic system of education; and they must be individually two before they can be organically one.

Relations to Moral Life.—The moral reasons for the separation of academy, college, and university are no less strong.

When a boy enters the *Academy* his morals are the product of hereditary, home influence, and early associations. He has not formed principles of his own, and, as a rule, is not capable of forming them independently. Consequently the academy must enforce right conduct by sheer authority. It must watch the boys day and night, in school and on the street. Its rules must be rigid and arbitrary. Its punishment must be swift and sure. It can enter into no argument with pupil or parent. In the *College* this method should be entirely abandoned. There should be no spying of students nor prying into their secrets. There should be no list of things forbidden, with penalties attached. There should be nothing arbitrary, and no avoidable severity. At the same time the college officers should take the deepest personal interest in the moral welfare of their students. When a college is organized properly, its officers, while not inquiring too minutely into specific acts, will know the principles of each student. They will know whether the student is reliable or deceitful, diligent or lazy, temperate or dissolute, pure or licentious, sound or corrupt. They will not hesitate to point out to the immoral student with utmost frankness and friendliness the shame and ruin of his evil ways. Making no charges of specific acts calling for external proof they will hold up the mirror to the moral nature in the clear light of an indisputable conscience. Of course a discipline thus friendly and confidential will run the risk that friendship and confidence always must run, of being occasionally imposed upon and betrayed. This is, however, the true and Christian method of moral discipline for men of sufficient maturity to appreciate it. Furthermore, it must be complete and unreserved. It is impossible to mix it with what I have called the academic system.

If it be asked if such a system will actually work, I can only write from a very limited experience. In Bowdoin College, over which I preside, there have not been, during the past three years, half a dozen cases in which students have been called to account for specific acts of disorder or immorality. During

these three years there has been but a single case in which any penalty beyond a verbal admonition has been inflicted. During the past year there was not a single case calling for even verbal admonition; and all familiar with the facts agree that the moral tone of the college was never higher. This is undoubtedly due in a very great degree to the high character of the young men with whom the college has been favored during the period. Yet had these same students been subjected to an irritating *espionage*, and threats and penalties held up before them, the result would have been far less satisfactory. Personal influence is the abundantly adequate, as well as the only appropriate moral incentive for men in the college state.

The ***University*** relies for its moral dynamic on the force of abstract ideas. Indeed, it presupposes in its post-graduate students a degree of maturity and self-possession which would render any other sort of moral influence superfluous. An independent intellectual life fosters a moral independence which resents personal as well as legal interference. It is inevitable that a university should foster this attitude of moral self-sufficiency; and for its post-graduate students this is undoubtedly the healthy and normal attitude. In the ***University College*** these two types of moral attitude cannot permanently co-exist. The university type is inherently the stronger. It is, however, not adapted to the average under-graduate; yet it is sure to dominate both graduate and under-graduate departments. Professors accustomed to deal largely with post-graduate students, and naturally having their chief interest in the men nearest to their own level, are almost certain to ignore the personal moral needs of the students furthest removed from themselves, and leave them to work out their moral character as best they can. Those students who succeed in working their way out to this independent moral basis during their college course undoubtedly acquire a rugged stoic strength which is lacking in men who have had more personal help along the way. But multitudes are utterly wrecked and ruined as the result of being left to

themselves before they have reached an independent moral self-consciousness. This personal help and inspiration in the formation of moral character is a most important factor in the rounded education of the total man; and it is its superior opportunity for doing this which constitutes one of the greatest advantages which the college, which stands alone, will always have over the college which is dominated and overshadowed by university ideas and influences.

Relations to Religious life.—The religious attitudes of the three institutions towards their students are likewise distinct.

The boy comes to the ***Academy*** with a religion which is merely formal and habitual, or else with no religion whatever. The academy can do little more than to sustain and strengthen such religious habits as it finds, and impose the outward forms upon all. If it undertakes to teach religion, it must be dogmatic; avoiding the discussion of vexed questions, for which its pupils are not ripe.

The religious function of the ***College*** is entirely different. It maintains formal worship; but it must breathe the breath of a rational spiritual life into these religious forms, or they will do more harm than good. It must constantly point out the connection between religion and the common duties and relations of every day life. It must make it manifest that all its dealings with its students are the necessary and consistent outcome of the Christian spirit which it is the aim of its devotional exercises to cultivate. In so far as the college teaches religion, it must do so with the utmost candor. It must give full weight to every objection, discuss every difficulty, and be content to leave in the minds of its students many questions unanswered until they settle themselves. And yet, while scrupulously maintaining this intellectual fairness, the college professor should take every opportunity, in public and in private, in season, and out of season, by precept, example, and entreaty, to "commend to every man's conscience in the sight of God" the superiority of the spiritual over the natural life. Respecting

the reason and conscience of the student, the college professor should never try to force religious convictions upon him; but he should not hesitate to throw all the weight of his personal influence on the side of an earnest and reasonable religion.

The ***University*** approaches religion, not in a dogmatic, nor yet in a persuasive, but in a critical spirit. For mature men this is well. The cause of reasonable religion has much to expect from the purifying influence of our universities, in breaking down prejudice, cutting off excrescences, and laying bare the rational foundations of religious faith, when once they fairly get at work upon the problem. But this attitude is a dangerous one for the immature and unformed mind.

But where ***College and University are blended,*** this is sure to be the attitude of both graduate and under-graduate; the one seriously inquiring into the claims of religion upon the intellect; the other flippantly proclaiming that "religion is an elective," which he hopes to find time to take later in his course. The result is that the undergraduate is occupied with second hand criticism before he has sufficient personal experience to make any criticism, intelligent, earnest, and faithful. Consequently he goes out with no definite religious convictions, and with little prospect of ever aquiring any. He has taken the university attitude which insists that nothing shall be accepted until it is seen to be both historically real, and philosophically true: whereas a comprehensive grasp of the results of historical criticism and of the basis of philosophical certitude is impossible for the average student in the college stage of development. If the college student is to accept religion at all, the example of those in whom he has confidence, and the influence of those who have a personal interest in him, in a word, the power of the Spirit, must have considerable weight with him. This personal influence is strongest in the country colleges, where generations of young men have been attracted to the Christian life by the blameless character, the friendly interest, the loving appeals, of such men as President Hopkins

and Professor Packard; while it is the inevitable tendency of university life to throw such influences into the background.

The lines not to be too sharply drawn.—For the sake of clearness, the differences between these three stages of higher education have been somewhat sharply drawn. There must be something academic about the freshman year in college. There ought to be a good deal of the university spirit and method about the senior year. There are men of exceptional character, talents and home training for whom the immediate transition from the atmosphere of the academy to that of the university, is intellectually profitable, morally safe, and religiously wholesome. Many more, for whom such a transition is not safe, will continue to run the risk which it involves. The university college has a sphere of its own, in which it will meet a certain class of needs which the country college cannot satisfy as well. But it can never take the place of the country college. As long as in things intellectual, moral and spiritual the law holds good "first the blade, then the ear, after that the full corn in the ear," so long will there remain in our system of higher education an honorable place and useful work for those little groups of scholars and students who, according to the original meaning of the term college, live together in mutual good will, in friendly helpfulness, in earnest study, amid the broad green fields and under the clear blue skies of our quiet country towns."

ADVANTAGES OF SCIENTIFIC EDUCATION.

PROF. ALEXANDER WINCHELL, IN THE METHODIST REVIEW, MARCH–APRIL, 1889.

"***Education*** is provided by legislators and sought by learners for the value which it brings the learner *in his own person*, and in the *power* acquired to exert a beneficial influence over others.

The personal result is culture in the proper use of the term, and the power acquired proceeds from a more effective use of the faculties gained through culture, and from increased knowledge placed at the command of the faculties. Education must be contemplated in its cultural aspect and in its practical aspect. Neither should exclude the other. Theories of education, exclusively cultural, are an affectation. Theories of education, exclusively practical, are illiberal.

The cultural result of education may be physical, intellectual or moral. Certain modes of activity produce chiefly physical culture; others, chiefly intellectual; and others chiefly ethical. Training deliberately physical in its aims is excluded from this discussion. But it is evident that those kinds of activity which incidentally involve physical culture possess thereby increased value; and I shall claim such an incidental result for certain forms of science. The form of culture most conspicuous among the results of scientific study is intellectual; and it is this which I will first consider. But almost equally important is the ethical culture which is received as an incident of scientific study. This I will explain in the sequel.

Intellectual culture consists in the culture of the various *powers* of the intellect. Viewing the acquisition of knowledge as the means of culture, the powers exercised will vary with the kind of knowledge sought. If we seek a knowledge of facts of observation, the *percipient* faculties will be brought foremost into activity. If we seek a knowledge of history, the *memory* will bear the brunt of the effort. If we seek a knowledge of Latin, the *verbal memory* is most severely tasked. A knowledge of the principles of geology or biology exercises first the *observing powers*, and then those of *inductive inference*. Mathematics brings into requistion the powers of *abstraction* and *deductive reasoning*. Polite literature awakens especially the *sentiments* and the imagination. For purposes of culture, those studies are of most worth which bring into exercise the widest range of powers, and thus tend to preserve the symmetry of intellectual development.

Studies must also be considered in their relation to the ***stage of the mind's development.*** The early aptitudes of the mind are toward *observation* and *circumstantial memory.* An abstract study is misplaced in the primary school. The powers of *inductive* inference begin to dawn in childhood, and thus inductive sciences are indicated as a field for their exercise. These powers strengthen through life. A study which, like Latin, supplies no material for their exercise, affords but a defective culture. It is only in maturer years that the *deductive* reason ripens. For this, languages, literature, and history supply no material; but the sciences are affluent incitements to activity.

Generally, I find the broad statement justified, that the sciences as a whole, and as separate, yield the most diversified culture. Each of the natural sciences elicits into activity, sooner or later, *every power of the human mind,* and thus confers a culture which is symmetrical and complete. No such statement can be made of the studies by tradition called 'humanistic.' "

THE ELECTIVE ELEMENT IN THE COLLEGE CURRICULUM.

CHANCELLOR SIMS, IN THE SAME NUMBER OF METHODIST REVIEW.

"With the vast increase of knowledge in these later times, the innumerable lines of special work pursued, and the endless forms of applied science, there has appeared a strong and persistent expression of desire that the entire ***theory of collegiate training*** should be modified and the curricula materially changed. What answer have our colleges and universities made so far? And what further should and will they make in the near future?

In answer to the demand ***for a wider range of studies, the elective element*** has appeared in varying degrees in nearly all

our college courses. Harvard leads the movement by making almost everything elective within prescribed limits. She offers her students scarcely anything for which she is not ready to accept something else. She degrades the classics from their traditional pre-eminence, and will accept almost any respectable studies in their stead. And yet she does not move off confidently along this new path, nor fail to utter a friendly caution to those upon whom she bestows such large liberty. She says in her latest annual, "Students are strongly urged to make their choice with the utmost care, under the best advice, and in such a manner that their studies from the first to last may form a rationally connected whole." "It is believed that any plan of study deliberately made and adhered to will be more profitable than studies chosen by him from year to year, with out plan, under the influence of temporary preference."

She thus urges the student to select some judicious friend, who will aid him to make the choices she declines to suggest, she requiring her Freshmen to select from four of the following courses: Greek, Latin, German, French, History, Mathematics, Physics, Chemistry, and Natural History. To the other three classes she offers electives enough to bewilder them by their multiplicity.

Another form of elective work appears in institutions which offer a great number of courses of study. Cornell University prints as her motto, the words of her founder, Ezra Cornell, "I would found an institution where any person can find instruction in any study;" and offers twenty-three courses of instruction, whose wide range extends from classic Greek to veterinary science, and from comparative philology to military science and tactics. She schedules three *general courses* leading respectively to the degree of A. B., B. Ph., and B. S., and adds eleven technical courses, beginning with agriculture and ending with the history of political science, nearly everyone of which is honored with some degree. Thus this rich and large young university almost resolves herself into a school of technology.

Still another form of elective work is presented by one of our western colleges, in which about three fourths of the course is *required*, and the remainder is given to a special department during the whole four years. While a few institutions are boldly moving toward curricula made up largely of electives, the great majority of strong and reputable colleges and universities are holding to the long approved basis of collegiate training, but admitting elective work amounting to a little less than half the course. This is usually introduced sparingly into the sophmore year, and steadily increases until it forms most of the senior work. Generally the elective studies proposed are carefully chosen, so as to harmonize with those required, and are practically options along that line.

The university of New York classifies by subjects and hours the work in her two courses of study. For the course in arts she requires that 835 hours be given to languages and literature, 683 to mathematics and natural science, and 402 to philosophy and history. For the course in science she requires that about 450 hours be devoted to languages and literature, 1,000 to mathematics and natural sciences, and 462 to philosophy and history.

Yale College permits considerable less than two years of elective work, but widens the possible choice to *ninty-two* subjects selected from seven different departments of knowledge.

The prevailing usage among the best colleges may be stated as follows: For the highest degree conferred, about three-fifths of the course is devoted to Greek, Latin, modern languages, mathematics, philosophy, and natural sciences, and the remainder to electives within prescribed limits. There is suprisingly little material difference in the courses of first-class institutions leading to the degree of A. B.

The schools of technology offer instruction in so many departments that somewhere almost every art or science may be pursued as a specialty without required work in other branches.

Is it probable that the ***elective system will supersede*** the present one? I think not for the following reasons:

The most important function of the college is to give that complete, symmetrical education which most perfectly developes the entire man. In the college is determined the character of most of the persons who are to fill the professions, teach the schools, write the books, and do most of the business of legislation for the whole body of people.

With such duties to society and the state, the colleges must maintain a form of education that shall develop the beauty and strength of all the faculties, as the Greek developed the physical ideal in the Apollo Belvidere and the Venus de Medici. They must not so much attempt the training of a man for some special profession, or to intensify and strengthen some special aptitude, as to fit him for the various responsibilities and vicissitudes of manly life. The elective system fails to give this education. It constantly keeps in mind either some utilitarian end or the gratification of some pronounced bent of mind. It forgets the ideal of mental, spiritual manhood.

Wherever the system of electives has been largely introduced there are notable cautions against possible evils arising from it. The Cornell University Register says: "In the course of their elective work * * * * students are urgently advised to proceed upon carefully formed and clearly defined plan, and to aim at the attainment of special proficiency in certain lines of work. The members of the faculty will be glad to give advice and assistance in the forming of such plans." Our colleges are not rich enough to maintain the number of instructors which would be necessary to a general introduction of electives. Yale offers to her juniors and seniors *ninety-two electives from seven different departments.* The number of classes which would be necessary if these choices were all made can possibly be imagined; but when Cornell attempts to realize the idea of her founder, the number of classes and teachers cannot be imagined.

It will probably be found more practicable for our colleges and universities to determine the leading features of their curricula, and require that the work thus indicated be done,

adding as far as may be a useful and attractive list of electives. Relief from the pressure of the multitudes of studies which will be called for, and might be profitably pursued, will be found in different ways. The organization of several general courses leading to appropriate degrees will add to the variety of work, and yet prevent the undue multiplication of classes; the increased requirements for admission will leave room for a wider range of subjects; a greater number of post-graduate courses will furnish admirable facilities for special work in the lines of taste or advantage, and the technical schools will provide for those who especially seek commercial and professional advantage in connection with their intellectual development.

The old classical college work doubtless will continue, and will grow broader and better, but will not cease to be chiefly required work. Other degrees will be given, but the world cannot spare the Master of Arts, and will not abandon the courses of study by which he is developed."

THE MANUAL TRAINING MOVEMENT.

PROF. N. M. BUTLER, PH. D., COLUMBIA COLLEGE, IN METHODIST REVIEW OF SAME DATE.

"***The manual training movement*** has succeeded the manual training problem; and in and by the manual training movement the manual training problem is receiving its solution. The manual training problem, so-called, has perplexed the leaders of educational thought, both in Europe and in this country, for some years past. Some time since the conviction took root in both continents, that the common or public schools, as they are called, while doing what, from one point of view, was an admirable work, were developing on a line which was diverging more and more from that along which the progress of civilization was proceeding. The conviction that this divergence ex-

isted was in itself most important; for its natural result could only be to stimulate the energy and ingenuity of educational thinkers to find some means of overcoming it.

And the general interest taken in the manual training problem was only a single manifestation of this conviction of the divergence between the public school and social progress.

The spirit of educational unrest was not confined to the sphere of elementary education. It prevaded the high school and the college, and forced its way into the sacred precincts of the university. In Germany the *Realschule* was organized and founded at the instigation of this spirit of unrest and dissatisfaction, and despite official discrimination against it the work of the *Realschule* has been so effectually performed that its friends are to-day asking not only for the admission of its graduates into the universities on equal terms with those of the *gymnasium*, but also for the incorporation of some at least of its features, together with those characteristics of the *gymnasium* that are the best, in a new institution to be known as an *Einheitsschule*. It is significant that both of the demands will probably before long be granted.

In the United States, the form of our educational organization and the absence of any national system of education prevented the same manifestations of this spirit as the educational history of Germany presents. But the establishment in rapid succession, of scientific departments in the colleges, of scientific and technical schools, and finally the general introduction and advocacy of the elective system in the literary colleges themselves, showed that the spirit was at work. While all these changes were going on in the department of advanced instruction, there was, at first, little or nothing to correspond being done in the sphere of primary education. This in itself, and indeed the fact that writers and speakers on education generally emphasize the interests of advanced instruction at the expense of those of the elementary schools, is evidence—if evidence is wanting—of the lack of appreciation of the real importance and value of our system of public elementary education.

It is not generally known, or, if it is known, it is not frequently taken into consideration, that of every twenty students who enter the primary school not more than one reaches even the high school. Indeed, a large proportion of the children of the country do not attend a school of any kind after they have reached the age of twelve years. Into the short period, then, between the age of six or seven and the age of twelve must be compressed such instruction as shall lay the foundation for intelligent citizenship and for the work of life. If all lives cannot be cultured, they should at least be saved from total intellectual inertia. The spirit of unrest to which we referred took cognizance of this condition of affairs, and raised the question whether the children who were attending the elementary schools, to say nothing of those who were receiving more advanced instruction, were being given such a training as would best develop their mental powers and best fit them for an intelligent and self governing manhood and womanhood.

It was the restless energy of Horace Mann that furnished the motive power for the spirit of educational unrest in the United States, and it was the teaching of Frederick Froebel that furnished to this spirit an ideal toward which to work. Froebel's study of the child and his profound insight into the child nature showed him that education was not a process in which the pupil does nothing but absorb facts. He saw clearly that the child's nature has an active and expressive side, which is, in the earlier years at least, its most prominent feature. The child breaks and makes, not necessarily inspired by a spirit of destructiveness or by the genius of invention, but because it is his nature to do something; to be active. This doing and this activity are, moreover, the expression of thought; at least they are the expression of such thought as the mind of the child harbors. Nothing is more natural, therefore, than if the child is absorbing facts and learning facts, that he should give the facts so absorbed and so learned a prominent place in the various expressions of his thought. Observation shows this to be the case. The child wants to test every idea, to put

in practice every theory with which he is acquainted. His first desire is to "see how it works;" and the normal child, the child whose activities have not been repressed and stunted by a systematic course of domestic and educational maltreatment, will seek to express his impressions of things as fast as he receives them. This is a process of mental digestion by which the food which the mind receives is assimilated, and made to contribute to mental growth and development. The mere gathering in of facts without the ability to use or express them, and without making them an integral part of the mind's furniture is not education; it is not mere instinction; it is simply a stuffing process, and the logical result of it ought to be that the most highly developed mind is that which has, so to speak, the greatest cubic capacity.

In the recognition of all this the manual training problem had its origin, and in the same recognition the manual training movement finds its justification and support. The manual training problem arose when the question was asked, "How shall we train our children so as to give their active powers the recognition to which they are entitled? As the drawing and constructive work of all sorts by which expression takes place is performed by means of the hands, the term "*manual* training" came to be used to signify this training of thought-expression by other than verbal means. But the attempt which is sometimes made to brand the manual training movement as an attempt to set the hand above the head rests upon a total misconception of the history of the manual training problem, and would not be possible were the true significance of the manual training movement understood. Nine tenths of the opposition which the manual training movement has met with has originated in the confusion of this movement with that in favor of technical education. This confusion has been made by superficial observers, apparently for the sole reason that the two came into educational thought at about the same time; and this, in turn, was natural enough, because both were the product of the same spirit of educational unrest and dissatisfaction."

THE PLACE FOR THE STUDY OF LANGUAGE IN A CURRICULUM OF EDUCATION.

M. PUTNAM JACOBI, M. D., IN AMERICAN JOURNAL OF PSYCHOLOGY, NOVEMBER, 1888.

"The feeling has always prevailed in civilized communities, that, as the mind was never seen to work without language, the study of language must be the basis of all mental training. We now know that much mental action precedes the use of words, and whenever we are logical to the laws of mental development, we train the mind to handle sense perceptions of external objects before we introduce the systematic study of language, even in reading and writing the mother tongue. Every one knows, however, that this change in the school curriculum is most recent.

The moment arrives at last when the study of language must begin, even if nothing else is learned but the native language of the child. This moment may, to a certain extent, be compared to that illustrious epoch in European history, when, at the Renaissance of learning, classical Latin and Greek were re-discovered for the modern world. The extraordinary effect of this discovery may well serve to prove the importance of language to thought. An immense number of thoughts seemed to have been impossible from the lack of fitting words. When these words were found—the buried treasures of by-gone ancestors,—the thoughts sprang to them as rider to the saddle; and, with new ideas, life was regenerated.

Thus, although the material for the physical sciences existed in the same abundance then as now, these sciences failed to develop until after the Renaissance of classical learning. The human brain could not advance in analysis of the external world until it had been disciplined and developed in its internal activity by training in language.

"But, at the present day, the educational value of the study

of languages has begun to be seriously questioned." Two reasons for this questioning are here named: the claim in behalf of some of the sciences that they furnish as much mental discipline as language, and the knowledge is more useful and more easily gained: the great range of subjects now presented for study forbids that language should longer receive the amount of attention it did in the past. He continues: "'These assertions touch, indeed, upon some truth, but they do not comprehend all of it, and they overlook much that is essential to the questions at issue.'

"The problems to be considered are:

1. Does the study of language exercise any different effect upon mental development from the study of any other subject, and if so what is it?

2. How does the effect of language study compare with that of mathematics, of the physical sciences, of the moral and historical sciences?

3. If such special effect can be proved, at what age or epoch of education is it most appropriate and useful to seek for it?

4. Is there any difference between the effect on the brain of the classic and the modern languages?

5. If languages are to be taught how is the necessary time to be secured for teaching other things most important to know, and too often neglected?

6. What proportion should these relative branches of study bear to each other in a general, non-specialized curriculum?

7. What special devices or methods may be suggested to facilitate the accomplishment of the above mentioned ends?

Language Study a Physiological Problem.—"The study of languages must be an extension, more or less complex, of the process of acquiring language,—the highest physiological acquisition that distinguishes the human race from the lower animals. The method and educational results of such a study are, therefore, primarily a physiological problem, and should be discussed by physiologists before they are handed over to

pedagogues. The genesis of speech is one of the most extraordinary and mysterious phenomena in the history of mankind. It is most difficult to understand why any particular sound or group of sounds, should have become significant of one object or idea rather than of any other. A purely physiological theory has tried to classify all words according to the parts of the articulating apparatus at which those fundamental sounds are formed, thus giving one intrinsic meaning to guttural sounds, another to labials, another to dentals, etc. But this theory cannot meet all the facts of the case.

"Max Mueller is inclined to accept the theory of Noire, 'who pointed out that whenever a number of people are engaged together in any muscular work, they have a tendency to utter aloud certain rhythmical sounds. 'These are almost involuntary vibrations of the voice, corresponding to the more or less regular movements of the whole bodily frame;' and Noire suggests that some special nerve element, or group of nerve elements, in the brain is then thrown into vibration coincidently with the external muscular movement; and this associated nerve vibration being propagated to the part of the brain which innervates the organs of articulation, the latter are excited to so modulate the simultaneously developed current of air in expiration, that a definite sound, one of the primitive root sounds, is produced. This verbal root remains associated with the act which was being performed during its articulation, and finally becomes an expressive sign for the entire class of acts during which it is habitually repeated. 'Thus would be explained,' observes Mueller, 'the fact that the primitive Sanscrit roots all express actions and not objects; as actions of digging, cutting, rubbing, etc.' Words expressive of other ideas are derived from the first by analogy and metaphor. This theory should also explain why any given root should bear a special relation to any given action, and hence come to express any special group of ideas."

Here follow illustrations of the theory with an accompanying diagram of the parts of the brain referred to. We regret

that we cannot give them here, as the clear understanding of the remainder of the article depends largely upon these illustrations and diagram.

Dr. Jacobi continues: "I will not dwell on the various interesting facts which might be adduced in support of this theory. But, in considering it, we are led to note the fundamental circumstance that speech implies a more extensive excitation of the brain, than does any action performed without speech, including in the latter the systematized thinking which clothes itself in words. In its most rudimentary form, the articulate utterance accompanying a muscular movement implies that nervous action has spread from the nerve centers governing the movements of limbs, to those adjacent centers which control the organs of articulation. Closely adjacent to these centers are other portions of the brain which have no immediate connection with nerves either going to or coming from the brain. These portions of the brain are concomitantly drawn into the vortex of excitement, and when that is the case, the vibrations of nerve cells and fibers which occur during the utterance of the speech, are repeated, or registered, as it is said, in these extra-sensory centers. It is then, in some mysterious way, that the consciousness or conception of speech is generated in the brain and mind of the speaking individual. The genesis does not occur unless the supra-sensual superadded convolutions of the brain have attained a high degree of development, and this is why no animal but man is able to speak.

Then follows a statement of the physiological processes in the brain, involved, *First*, in a visual impression of a *single* object, and auditory impression of its name, and the combination of these two in an ideal concept; closing with: "*It is plain, therefore, that to learn the name of a thing, and to learn how to use this name, involves much more mental action than is required simply to acquire sense perceptions about it.*' *Second*, when the name of a single object is *generalized* to others so

as to form a class; showing the extent of the brain areas excited." The italics are the authors.

He continues: ***"The fundamental fact*** in the acquisition of language is, that it arouses the activity of the highest centers of the brain—the ideal or concept centers without whose functions all knowledge of the external world must remain as isolated groups of sense impressions. * * * Language is essential to all but the simplest forms of thought. * * * This, at least, is the case while speech is being generated or acquired for the first time. Subsequently the utterance of speech aloud may be retained; but none the less is the speech center thrown into activity and the word re-echoes in the brain to the footfall of the thought.

"The acquisition of foreign languages modifies the cerebral processes just described, by rendering them even more subtle and complicated." This part of the subject is discussed at considerable length with a number of accompanying illustrative diagrams, then continues:

"To sum up: the acquisition of foreign languages in addition to the native tongue multiplies the number of verbal signs which the mind habitually couples with visual impressions. In registering and in using these multiple signs, the mind is compelled to more complex operations than when only one sign is used. When, in different languages different primary words or roots are used to represent the same object, then the mind, using them all, becomes acquainted with the different aspects of that object which have impressed the minds of those among whom these different names have sprung up. Thus a larger impression of the object is formed, and the mind of the speaker, which is rendered more flexible and active by engaging in more complex internal processes, is also enlarged by a richer store of external impressions. This latter effect is proportional to the degree to which the different language aspects of the object are thoroughly studied; it may be entirely missed if they are not deliberately studied at all.

"It is finally to be noticed that while the mental or *cerebral*

process increases in extent when *multiple names* are learned which have no relation to each other, *i. e.* which come from entirely different roots, the *delicacy and finish* of these processes is more *increased* by the study of *closely related words*, *i. e.*. those with precisely the same root, and only modified termination, or those whose identical roots are modified by the introduction of equivalent sounds, as p for v, g for k, etc. The reason for this is the same as for any nervous action, and is conspicuous in nervo-muscular action. Every one knows the immense superiority in delicacy and subtilty of the movements of the fingers as they pass through minute areas of space, as compared with the movements of the arms or legs, which may extend so much farther. So the immense mental discipline to be derived from the study of the European languages is only obtainable when these languages are studied together as simple varieties of the European language.

The First Question Answered.—"The first question we have proposed for solution may now be answered thus. There *is* a special effect produced by the acquisition of language, so special that it seems to distinguish man from the brutes. It depends upon and incessantly develops the ability to use abstract signs as symbols of things, and to use them apart from these things. It is essential to the elevation of the mind above the level of sense perceptions; and itself develops the mental sphere in which ideal conceptions arise, combine with one another, and generate endless successions of new ideas.

"The process of acquiring foreign languages, in addition to the mother tongue, modifies the original process, by extending, refining and complicating it. Impressions are immensely multiplied and the mind becomes accustomed to take cognizance of such subtle differentiation that its delicacy of perception is indefinitely increased. The capacity to appreciate subtle distinctions, more subtle than those existing in nature outside of the mind, is essential to scientific work. It is also essential to a high grade of ethical culture. Not unjustly have lan-

guage studies been entitled 'Humanities'; for it is the grade of mental development which they foster, that is necessary for the harmonious and finely equitable maintenance of social relations. Without this culture, the study of the external world, even if successfully pursued—which is rarely the case,—is liable to have a materializing and even brutalizing effect, and that in proportion to the complexity of the interests involved. It is very possible for an illiterate carpenter to be a very honest fellow; but it is much more difficult for an illiterate physician to be truly honorable, even when skillful in his craft.

The Second Question Answered.—"Our second question demanded a comparison of these two forms of abstraction, Language and Arithmetic. The comparison is not difficult to make. Number is a single quantity abstracted from objects, to be handled separately by means of its signs. But words represent multiple qualities combined in constantly varying proportions. Mathematical signs, earlier detached from objects, soon pass into a more purely abstract region than words, from which the image of the object is never completely effaced, and which indeed constitute forever a marvelous transition ground between purely mental conceptions and purely sense impressions. The high degree of abstraction of mathematical signs, however, is balanced by the much greater simplicity of their mutual relations; while the more concrete and sensuous character of verbal signs is associated with an incalculable multiplicity and qualitative variety of interrelation. Hence they bring the mind much nearer to the infinite variety of nature than does mathematics. The abstractions of language prepare for the copious details of natural science and of practical life; the abstractions of mathematics, though essential to the scientific manipulation of these details, are liable, if uncorrected to unfit the mind for their assimilation. Mathematical training facilitates the working of the syllogism; but language training tends much better to facilitate the discovery of the premises.

Language and the Study of Physical Science.—"Physical science consists of two parts: 1st. The acquisition of sense impressions through contact with external phenomena. 2d. The collation, comparison, and classification of these impressions, reasoning upon them, and establishment of the laws of phenomena. Thus the first process in scientific study corresponds to the activity of sense impressions, which for every individual constitutes the earliest form of conscious activity. The second process corresponds to the second step, taken when the mind reacts upon its sense impressions sufficiently to generate words, to create language. Words are the first products of the action of mind upon nature, as science is the latest and most complex expression of the same action. Thus language is the earliest and most perfect type of science. In its three-fold nature it offers a *three-fold type*, namely, in *words*, in *grammar*, and in *literature*.

"***Words,*** as has been shown, result from the combined activity of several sensory centers in the brain, taken together, or further combined with that of its ideal centers, the latter being probably, portions of the brain which are not immediately connected with sensori-motor apparatus or with sense impressions. Words, therefore, on one side, contain the image of external objects; on the other, they consist of a mental sign which has been generated within the brain. Hence words may be studied in a twofold manner, objectively by methods appropriate to any study of objects, while subjectively they may be utilized to exercise the mind in handling abstractions not yet disconnected from concrete things.

"Now it is quite impossible permanently to choose, as some people seem to imagine, between study of words and study of things, after the very first steps have been taken. The first steps must certainly consist in direct observation of things, and in training the senses by such observation.

"But in the handling and observation of things by a young child there soon comes the necessity for a pause. The necessity depends upon two circumstances; the material to be studied

is difficult of access, and its important properties are too complex and too recondite, to be made appreciable to the child's senses, consequently not at all to his mind. Because a simple sense perception is possible to a child at the time that a complex mental relation would be incomprehensible, it does not follow that a complex sense perception is more easily appreciated than a simple mental relation. Still less does it follow that it is possible to convey to a child knowledge of many of the most fundamental facts of science, which are not merely phenomena of nature, but complex ideas, composed partly, indeed, of observations of phenomena, but partly also of the inferences, often very subtile, which have been based on these observations. It is a most ludicrous misconception of the nature of science to suppose that the little manuals and primers which abound for the purpose of disseminating information apart from scientific method, really teach anything at all.

"Again, it is a dangerous preparation for the study of science to call upon children to imagine or represent to themselves facts which have not been apprehended by their senses, or those which could never be. Scientific imagination is only permissible to those whose minds have once become saturated with pictures of real things from prolonged contemplation of nature. Hence, until the real objects can be perceived, and by means of the real scientific methods, there is nothing gained but only precious time wasted in pretending to study them. This same precious time can, however, be utilized in the study of a class of objects which are everywhere accessible in abundance, and whose properties can be rendered conspicuous and intelligible to a properly prepared child of seven or eight. This class of objects consists of words.

"***Grammar,*** the second point of language, affords still higher training in the mental process involved in scientific study. Grammar is the science of relation between conceptions. It is the science of propositions, of the laws whereby words so group themselves in consciousness as to form distinct complex

ideas. We have supposed that individual impressions depend when the excitation of definite areas of brain tissue, and that verbal impressions were peculiar in resulting from the combined excitation of several such areas. A proposition implies the coincident excitation of a much larger number of areas, and especially in the non-sensory concept centers. The study of grammar, therefore, differs from the study of words in two ways. It calls into play more predominantly the concept centers as compared with the sensory centers; and it emphasizes the excitation of the connecting fibers of the brain rather than that of the ganglion cell areas which they connect. Grammar, which, from a certain standpoint, is justly considered to be a branch of logic, disciplins the brain in handling and grouping the impressions which have been registered on it. The discipline thus obtained prepares the mind to similarly group and handle all new impressions; prepares it therefore to find a discipline in the material of physical science, as it could not otherwise do. Without such previous training in language, the mind is almost inevitably staggered and confused by the immense mass of impressions it tries to group in either physical or moral science.

"*Literature*, the third department of language, represents the action of mind upon nature in a manner coequal with that shown in science. To enable adolescents to become acquainted with European literature, it is necessary that in childhood the preliminary work in the lower departments of language, words and grammar, shall have been already accomplished. In words and grammar are already found outlined or reflected the history and philosophy of European nations. Studied with the same system and method that would be applied to the material of a physical science, words and grammar will lead the child insensibly but profoundly, into the very heart of literature, and into the central life of the races of humanity that concern him. Until he has touched upon this, his own is incomplete.

"The foregoing considerations answer, we think, the second

question, which asks a comparison between the educational values of language, mathematics, and physical science.

The Third Question Answered.—They also answer the third question, namely, when the study of language may be most profitable pursued. The characteristic time for this study is between the age of seven, and the age of fourteen and fifteen, when really scientific studies may be begun.

The Classical and Modern Languages.—The most characteristic benefits to be derived from the study of European languages are only obtainable if several of them are studied simultaneously, and on the same plan with which we should study the different members of a botanical family. Knowledge of the five languages, Latin, Greek, French, English and High German, is requisite to the real understanding of any one of them; and if these are possessed, knowledge of the remaining languages of the Indo-European family, though often most interesting, is unessential, and may be deferred or neglected. It is hardly necessary to observe that these languages contain the literature, and mirror the thought and life of Europe.

"Nor is it necessary to dwell on the vulgar error which would distinguish Latin and Greek as dead languages, and hence less useful than modern dialects which may possibly be spoken. To an English-speaking person of any culture, Latin and Greek are far more living than Spanish, or Portuguese or Dutch, all spoken languages. Five-sevenths of our English vocabulary is Latin. Yet Greek is so much nearer the complex flexibility of modern habits of thought, that Dr. Schliemann might almost be justified in urging its acquisition before Latin, and as a spoken conversational tongue. It is, moreover, as is just beginning to be noticed, a really modern and still spoken language.

"With which *vocabulary* from among these languages a child begins his systematic study of language, is almost a matter of indifference. Still it is usually preferable to select Latin, be-

cause its letters are the same as English, while German and Greek are not; because the structure of its words and spelling are most closely allied to English, while it is not so with French whose pronunciation also offers peculiar difficulties; and finally because the regularity and simplicity of its grammar render it the language in which the principles of grammar should first be studied. Greek grammar is more complex; French and German more arbitrary and capricious, especially French. English grammar is atrophied, and as unsuitable as a field wherein to learn the principles of grammar, as the hoof of a horse would be as a model for the study of feet.

"It is desirable, when possible, that a child learn instinctively two languages from birth; but is also desirable that no attempt be made to teach it to speak more than two. * * * The child may, at the age of seven, begin to read in Latin and French, simultaneously. It is not customary to consider this possible, because the study of foreign languages is habitually initiated by the study of their grammar. But this is as unphilosophical as was the former practice of beginning the study of English with spelling and grammar.

"Children tend to learn a foreign language by precisely the same process by which they acquire their own. They first learn words, and are so powerfully impressed by the roots of these, which convey all their essential meaning, that they remain perfectly indifferent to their collocation, termination, and inflection. If, disregarding this natural tendency, the teacher compels the child to study grammar first, an opportunity to learn a great deal is wasted, and much time is also wasted in learning a very little.

"Part of the mistake depends upon the assumption that a child must be taught to speak the language before learning how to read it; and for speaking correctly, a knowledge of grammar and idiom is indispensable. This is the view taken of the modern languages. But another mistake is made when Latin is considered; for, as a really fluent reading knowledge of Latin is to-day rarely aimed at, the advantage of its study is

often supposed to lie exclusively in the discipline afforded by its grammar. Hence, with French, the child is tied down to endless uninteresting questions about the umbrella of my aunt and the inkstand of my grandmother, in the useless attempt to teach him to speak French correctly; or, in Latin, is drilled upon the galloping of swift legates from the armed city, so that he shall be able to parse Cæsar's Commentaries." * * * the manipulation of a foreign language by speaking and writing it to express one's own ideas is a much greater cerebral effort than is generally recognized. It is an effort that is not demanded at the same stage of knowledge about any other subject. For instance, a student is expected to spend a very long time upon the study of descriptive botany before he would be called upon to invent botanical theorems of his own. Speaking a foreign language is the mental equivalent for thinking out original propositions in a foreign science." Here follow quite full details of the method of the study of words with illustrative diagrams. The author then says:

"By such methods, the child, at the end of a year, may be expected to learn from three hundred to five hundred Latin words, and their cognates in French, English, and German. * * * At the same time a beginning can have been made in reading French, whose resemblance of construction (though not of verbal structure,) to English makes it easier to read than Latin. A book interesting to the child must be selected, and the reading conducted exactly as it would be in English. * *

"It is to facilitate fluency, that, for at least two years, the teacher must supply the place of the dictionary and tell the child the meaning of each new word. At most when a word once learned has been forgotten, he may be led to refer to the previous phrase, and to recall the meaning from the context. It is indeed always desirable that the meaning of new words be divined as much as possible from the context. It is wrong to condemn this as reprehensible "guessing," and fatal to accuracy and thoroughness. The act implies an effort of the mind to revive faint reminiscences, and to detect faint associations of ideas; i

is the very act involved in scientific research after new truths.

"The child should not at this period be left to himself at all. * * * Such independent work comes later. But the business at first is *not* to train the mind in self-reliance, but to saturate the brain with impressions, and to habituate the ear to new forms of speech. This must be done under guidance. With such guidance, Latin may be read with but little more difficulty than the French or German. * * * It is pitiful to see scholars, after many months, even two or three years of study, still stumbling over Latin sentences, in the attempt to read them in the English order, to turn them, as it is said, 'into good English.' Now in order to penetrate fully into the spirit of a language, it is necessary at the moment of enunciating it, to banish all recollection of any other language from the mind. It must *not* be translated, or the habit of translation must cease as soon as possible.

Grammar.—"After two years study of words, and when by repeated practice, some empirical reading knowledge of French and Latin has been obtained, the child enters upon the second part of language, the study of *grammar.*

The fundamental peculiarity of grammar has been pointed out. It is concerned with the relations of words and ideas, quite separated from, their sensory signs; concerned with processes that take place exclusively in the concept centers of the brain. * * * It is perfectly absurd to make a child study grammar, until its mind has been well stored with impressions of words. And, on the other hand, it is equally absurd and a great waste both of time and of fitting opportunity, to defer the study of words until the mind has become ripe for the study of grammar.

"Why French grammar should ever be learned before Latin, I have never been able to understand. A large part of its subject matter consists of idioms and conventions, whose reason lies in the historical development of the language, and not in logic. Now, a child is capable of logic long before it is really

capable of history. To teach French grammar before Latin, is to accustom the child to place accident before necessity and convention before truth; a most fatal habit of mind. The two grammars should be studied simultaneously.

"In considering grammatical inflections, the child learns to develop an idea whose germ had been previously acquired, namely, that the essence of the word lies in the root, and that the termination is a varying modality. But, to freely appreciate this fact, the child must be led to discover the inflections and their groupings for himself, and not confronted at the outset with lists of declensions and conjugations to be learned by heart. This universal practice is, from a psychological point of view, simply barbarous. By a scientific method the child should be led to deduce the inflections from his own observations of the facts of the text. Reading the same word in many different connections, and being obliged by the context to translate it differently each time, the child can be led to notice the different terminations which belong to each translation. From these various observations he can gradually build up for himself, of course under guidance, a complete scheme of the five declensions. Much more time is thus consumed than in the ordinary method of learning these declensions by heart. But, on the other hand, the child repeats the process by which the grammar was originally constructed, and, what is still more important, he becomes acquainted with the method which is typical for all scientific study: he collects scattered facts, brings them together, observes their relations, and establishes their laws.

"* * * When the inflections have been once learned, the child must change his mode of reading. He must no longer be told the meaning of words, nor allowed to divine either the root meaning or the mode from the context, but he must infer the precise interpretations of each word and of the entire sentence from these inflected terminations.

"It is generally recognized that this act of inference or reasoning is an important mental exercise. Indeed, teachers are rather liable to err on the side of thinking that this is the only

kind of mental discipline, and that it is, moreover, the chief value of learning Latin. Neither assertion is true; but the value of the inference is, nevertheless, great.

"Acts of inference always imply a revival of past impressions, principal and accessory, and their fusion with the impression newly received. They powerfully exercise the mind because they fuse scattered excitations or vibrations into energetic unity. The inferences that are demanded of a child in translating Latin are simply the type of mental acts that are to be demanded of him all his life, and constitute an excellent preparation for these. The logical value of French and German is so much less, because precise knowledge of construction and inflection is unnecessary to the interpretation, and the general similarity to English renders much narrower the space traversed by the mind to reach the point of view of the foreign consciousness.

"All grammatical subjects must be studied on the principles laid down for study of the inflections. The laws, as far as possible, must be deduced from observation of the facts, and not announced categorically, with the facts adduced in illustration. Grammar must be carefully kept subordinate to language considered as a means of expression and communication. * * * "For children under fifteen, only just so much grammar should be required as is essential to the accurate interpretation of what is read, and to the power of approximate accuracy in writing. Two principles should guide the selection of grammatical subjects for young children. First, that ideas are easy for the child in the degree to which they approach or involve, sense, perceptions or concrete conceptions, and are difficult according as they recede from these and become generalized. And, second, that grammatical laws and rules are impressive in proportion as they seem necessary; and unimpressive, therefore difficult to remember, according as they relate to what seems unimportant, that is, to whatever is unessential to the interpretation of the sentence.

"In all study of grammar, under the age of twelve, this rule should dominate: let nothing be learned but what is essential

to the interpretation and manipulation of the language, and defer philosophical grammar to a riper stage of mental development. The energy often wasted upon premature study of grammar is much more profitably occupied in acquiring fluency in language. * * *

"By the age of twelve, a sufficient fluency in reading and writing French should have been acquired to justify dropping its study for a while, and substituting the systematic study of Greek, this to be pursued most strenuously for the next four years.

The General Construction of Language.—"The general construction of a language exhibits on a still larger scale than does its elementary grammar, a process of cerebral synthesis in which the 'association' fibers of the brain are involved, those, namely, which connect separate convolutions with each other. Every special form of language construction depends upon a special grouping, not merely of different areas of cells, but of different convolutions; of distinct territories often widely separated. * * * When a person, habituated to one form of construction, learns to understand fluently, to think, and still more to speak under another form, the functional grouping of these brain regions must be changed. This change, like all changes of nervous tissues, constitutes an immense stimulus and excitation, proportional to the extent of the change. To consciousness, the mind seems to have traversed a certain space to place itself at the new point of view. The physical basis of this consciousness is the space occupied by the nerve fibers of the brain, which propagate vibrations from one convolution to another. When an English-speaking person projects his consciousness into the form of language construction peculiar either to Latin or Greek, he seems to traverse a much wider space than if he simply pass from English to French, or even to German. Hence the mental development or cerebral stimulus derived, must be much greater.

The Special Value of the Study of Latin.—"The special values of the study of Latin over the modern languages may now, in answer to our question, be categorically stated.

1. "No European language, and no European history or philosophy, apart perhaps, from the Sclavonic and Scandinavian groups can be understood without knowledge of Latin.

2. "Least of all, can English language, philosophy, or history be understood, since the language is simply a combination of Anglo-Saxon and Latin, in which Latin considerably predominates, and Rome is indellibly impressed upon English history, thought and institutions.

3. "In the study of words, which should initiate the child into the study of language, the Latin roots are best fitted for beginning, on account of their familiarity, conspicuousness, simplicity and ready manipulation.

4. "The Latin Grammar is the most perfect grammar of Europe and should alone be used to teach grammatical principles, selected in the order of their natural comprehensibility for the developing mind.

5. "The construction of the Latin language as a whole compels the translation of the modern mind into a form of consciousness sufficiently remote from its own to necessitate a great change in the general synthesis of the cerebral activity. The same is true of Greek. The change constitutes a powerful mental exercise and brain stimulant.

"To obtain the full value of the study of Latin and Greek upon the development of the brain, must be applied the principles that are now generally, though half consciously, invoked in the acquisition of the mother tongue and of modern languages, namely, the synthetical impressions of the language as a whole must be copiously stamped on the brain before the pupil is called upon to analyze the language. This is to be done by means of *much* and *rapid* reading. Roger Ascham tells us that Queen Elizabeth became a good Greek scholar by every year reading entirely through the works of Demosthenes and Isocrates.

"The reading must be on a subject interesting to the child; hence it is scarcely possible that it be directed to classical authors usually chosen for a school curriculum. It is the fashion among some teachers to denounce 'readers of manufactured Latin,' and declare 'that the sooner a boy can draw his Latin from the living spring of a classic author, the better.' This principle may or may not be correct from the point of view of the Latin scholar, but from the standpoint of the physiologist and psychologist it is certainly absurd. We do not forbid English children to read English until they are able to understand Milton; or French children from reading French so long as they fail to understand Jomini's Art of War. It seems improbable that Roman children were ever schooled upon Cæsar's Commentaries.

Sixth Question Answered.—"The development of our subject has insensibly furnished the answer to another of the questions started at the beginning of this essay. It is necessary to maintain a just proportion between the study of languages and the other studies of a general curriculum. The effect on mental development and training is to be obtained, if at all, by the age of fourteen, fifteen or sixteen.

"All that has here been said on the physiological value of the study of language applies to the developing mind—to the stage of development at which signs are being coupled with things, and the mental couple raised to the concept center, and accepted as a unity in consciousness. For the adult mind, accustomed to the use of signs, the acquisition of a foreign language can have no such educational significance. Hence, one great reason for teaching children a reading acquaintance with four or five languages, between the ages of eight and fourteen, is that by the latter age they may really know these languages, and then begin to study something else more difficult or of more immediate practical utility.

"Nevertheless some study of language must always accompany all other studies. Language, which alone perfectly ex-

presses all internal thought, also mirrors all external things as they have ever impressed the mind of man. Language, speech is thus truly the Logos, the intermediary between the soul and the world. But advanced philological study should be regarded as distinctly a specialty, as is the advanced study of philosophy, or chemistry, or physics, or physiology, or any other science. That a youth must have, or pretend to have, a perfect knowledge of Latin and Greek, before he attempt to acquire even a smattering acquaintance with the world around him, is certainly a traditional superstition. But by the method of language study which has here been advocated, the student may really experience the discipline conferred by language training, may enjoy the immense practical advantage of admission to all European literatures, and yet secure time for a correlatively liberal education in other directions, equally important.

We next introduce a subject which is not only closely connected with educational methods, but in its far reaching effects, especially as developed in England, is found to intimately concern patriotic and philanthropic citizens of all classes. The extracts will speak for themselves.

The following Protest appeared in The Nineteenth Century, November, 1888, under the title,

"THE SACRIFICE OF EDUCATION TO EXAMINATION."

It has been widely quoted and commented upon. The subject of which it treats, is one which educators everywhere regard as being of serious importance, and these opinions from the highest authorities in England and the United States will, we are sure, be eagerly received and studied.

"The following signed Protest against the mischief, to which the system of competitive examinations is running in this country has been sent to The Nineteenth Century, with an intimation that its authors would be glad to receive additional signatures in its favour.

"We, the undersigned, wish to record our strong protest against the dangerous mental pressure and misdirection of energies and aims; which are to be found in nearly all parts of our present educational system. Alike in public elementary schools, in schools of all grades and for all classes, and at the universities, the same dangers are too often showing themselves under different forms. Children — as is so frequently insisted on, — are treated by a public department, by managers, and schoolmasters, as suitable instruments for earning government money; young boys of the middle and richer classes are often trained for scholarships, with as little regard for the future as two-year-old horses are trained for races; and young men of real capability at the universities are led to believe that the main purpose of education is to enable them to win some great money prize, or take some distinguished place in an examination.

"We protest emphatically against such a misdirection of education, and against the evils that necessarily arise from it.

Physical Harm.—"We wish at the outset to call attention of parents and teachers to the resulting physical mischief. One of the first duties of a child or young person is to grow well. In the rapid formation of new bones, muscle, and tissue of all kinds, Nature lays on a child a very heavy tax, a tax that should absorb the larger part of its surplus energy. It is probable that in the course of every year some valuable young lives are lost, in cases where this energy has been drawn away by mental overstrain, from the work which it has primarily to perform, and where there is in consequence a failure of strength to meet the sequelae of scarlet fever, or other serious illness. Even in the great number of cases where no strongly

marked ill effect discloses itself during the years of youth, there are sufficient grounds for believing that what is unsparingly taken at this period of life is taken at the expense of future vigor and capability.

Intellectual and Moral Harm.—"By the side of the physical evils, at which we have glanced, stand equally serious evils of an intellectual and moral kind.

"First, it should be noted that under the prize system all education tends to be of the same type, since boys from all schools of the same grade meet in the same competition, and all teaching tends to be directed towards the winning of the same prizes. No more unfortunate tendency could be imagined. The health and progress of every great science, such as education depends upon continual difference, upon new ideas, and experiments carried out to give effect to such ideas, upon the never-ending struggle between many different forms and methods, each to excel the other. It cannot be to often repeated that uniformity means arrest of growth and consequent decay; diversity means life, growth and adaption without limit.

"Secondly, we hold that the preponderating influence of examinations destroys the best teaching. Under it the teacher loses his own intelligent self-direction. He cannot devote his powers to such parts of a subject as are most real to himself, and most deeply felt by himself (though on this depends the impressiveness of all teaching and the awakening of permanent interest in those taught) as he is constantly controlled by the sense of the coming examination, in which of course he wishes his pupils to succeed. The pupil, on the other hand, allows himself to be mechanically guided for the sake of success. His mental sympathies become bounded by the narrowest horizon.

"Thirdly, the true value of different kinds of education cannot be so intelligently considered and so easily measured by the public when these great prizes are in existence.

Other Evils.—"Other more subtle evils, which appear to many of us to result from doing work simply for the sake of an all-

important examination, such as the temporary strengthening of the rote faculties to the neglect of the rational faculties, the rapid forgetfulness of knowledge acquired, the cultivation of a quick superficiality and power of cleverly skimming a subject, the consequent incapacity for undertaking original work, the desire to appear to know rather than to know, the forming of judgment on great matters where judgment should come later, the conventional treatment of a subject and loss of spontaneity, the dependence upon highly skilled guidance, the belief in artifices and formulated answers, the beating out of small quantities of gold-leaf to cover great expanses, the diffusion of energies over many subjects for the sake of marks, and the mental disinclination that supervenes to undertake work, which is not of a directly remunerative character, after the excitement and strain of the race; nor will we discuss another class of evils, that falls less directly on the student, such as the waste of very precious time inflicted on the teacher by the drudge-work of examinations. It is enough now to affirm that the moral effect of the system; viewed broadly is distinctly bad. Only too often the greater part of the knowledge acquired for an examination and the life, which the student has presently to lead, are to him as matters separated by a great gulf, almost without connection with each other. We cannot help asking why we should thus throw away the noblest and most enduring inducements that we possess, and put in their place motives which, except for the desperate effort of the moment, must be poor and unfruitful. For those who can only be induced to work for such motives, let their friends provide in some special fashion such rewards and stimulants as they may find necessary; but for the higher type of boys and young men (and we believe they will gradually prove to be far the larger number, when we have once shaken ourselves free from the corrupting influences of the present system) let the effort be to offer the only true kind of teaching, the teaching of those who are in love with their subjects, and would, if allowed, devote themselves to calling out the same feeling in their pupils. At the present moment

both teacher and pupil are morally depressed and incapacitated by a system that deliberately sets itself to appeal to the lower side of human nature.

It cannot be to often insisted on that examination is a good educational servant, but a bad master. It is a useful instrument in the hand of a teacher to test his own work, to know how far his pupils have followed and profited by his teaching. But it necessarily exerts a fatal influence wherever it is made of such importance that teachers simply conform to an external standard, lose faith in themselves, sink into the position of their own text books, and give but little of their own personality to their works. It is true that it is necessary to test the work of teachers, but it is not necessary for the purpose of doing so to take the whole soul out of teaching. If examinations are to be defended on the ground that they may test the efficiency of teachers, then we reply that other and better ways of doing this work are to be found, and must be found.

We renew our protest against the low ideas placed before young men; against the highly artifical competition to which both parents and teachers give their adhesion, and which destroys the real material competition of method competing against method and type against type. We can only hope that with the abolition of the class and prize system there will grow up a much more delicate appreciation than exists at present of the subtle influences, both for good and evil of education; and that the easy credulity, with which this generation has placed book learning before a careful training of the senses and higher faculties, may slowly give away to truer views."

Here follow the names of between four hundred and five hundred signers; embracing a large proportion of the most eminent Englishmen in the professions, and in the government service. Three of the most noted signers, Max Mueller, E. A. Freeman, and Frederick Harrison, gave a further statement of their views, from which also extracts are given below.

"Considering that nearly forty years ago I did my best to prove

the necessity of examinations for admission to the civil service, it will be believed that I did not sign the foregoing protest with a light heart.

From what I have seen at Oxford and elsewhere, all real joy in study seems to me to have been destroyed by the examinations as now conducted. Young men imagine that all their work has but one object, to enable them to pass the examinations. Every book they have to read, even to the number of pages is prescribed. No choice is allowed; no time is left to look either right or left. What is the result? The required number of pages is got up under compulsion, therefore grudgingly, and after the examination is over what has been got up is got rid of again like a heavy and useless burden. Nothing is converted *in succum et sanguinem*. The only thing that seems to remain is an intellectual *nausea*—a dislike of the food swallowed under compulsion. The mischief done is, I believe, most serious. It will poison the best blood of England, if it has not done so already.

"It is the best men who suffer most from the system of perpetual examination. The lazy majority has, I believe, been benefited by it, but the vigor of the really clever and ambitious boys has been systematically deadened. Formerely some of my clever young friends were what is called idle at Oxford, but during their hours of idleness, which mostly meant discursive reading and thinking, they grew into something, they became different from others. Now, my young friends seem all alike, all equally excellent, but so excellent that you can hardly tell one from the other. What is the result? We have excellent members of Parliament, excellent judges, excellent bishops, excellent generals; but if you want to know Who is Who! we must often consult a Red Book. England is losing its intellectual athletes who were head and shoulders above the rest, and used to be looked up to as born leaders of men. And if history teaches anything, it teaches us that no country remains great without really great men, without a few men different from the rest."

F. MAX MUELLER.

"Just now it seems to be understood that examinations are the chief end of life, at any rate of University life. Now what has come of all this? Simply the degradation of University learning and teaching into a trade. When examination after examination becomes the main object, there is sure to be a great deal too much teaching, so much as to leave no time for learning on the part of either teacher or taught. The legitimate duty of a University teacher is to guide his pupil to the right books, the great books of the subject in hand, and to act as a commentator on them. But this implies that the object is not the passing of an examination, but the study of a subject. When the teacher's business is understood to be to get a man through an examination whether the result of that examination is to be a mere pass or a first-class with its 'pecuniary value'—study of the subject, study of the great books on the subject, passes away. The teacher puts himself instead of the books; the thing becomes in plain words, cram.

"Every examination is in itself an evil, as making men read not for the attainment of knowledge, but for the object of passing the examinations, perhaps of compassing its 'pecuniary value.' But it may be hoping too much to hope that examinations can ever be got rid of altogether. If they must be, then instead of being many and piecemeal, they should be far and searching. The complete degree should be given only to those who show real proficiency in some subject, the last 'ology' counting as one. Thus only can real learning, as distinguished from cram, at least cease to be penal.

EDWARD A. FREEMAN.

"My point in this discussion is:—that, having been called in to aid education, examination has grown and hardened into the master of education. It has created a body of specialists called Examiners. Their business is not to teach; but to test whether the teachers are teaching, and what the learners are learning. This forces the learners not to attend to their own teachers, but to find some way of satisfying the examiners. Thereupon

grew up another class of specialists, the Crammers. Their business is not to teach, nor to test teaching; but to enable students to pass the test. This soon became an art of its own, as artificial as playing whist or the violin. So, in the cricket field, having called in professional bowlers to practice, it became necessary to call in professional 'coaches' to teach the defense of the wicket. And in the result, education is tending to become a highly exciting match, not so much between the players as between the 'bowlers' and the 'coaches'.

"Every teacher knows by experience that when he has to take his place in the examination curriculum, he has to submit to the system, and he does his best to practice the examining art. And when, as every teacher nowadays must, he has to turn crammer, he tries to acquire the crammer's art; *omnes eodem cogimur.* Teachers, examiners, crammers, and students, all have to take their place in the vast examining machine, which, like the Prussian military system, grinds out a uniform pattern. The huge examining mill grinds continually and grinds very fast, unlike the mills of the gods, but the grain is cast aside; it is designed to grind out the husk.

"I do not say that we can do without examinations; nor do I object to all examinations, under any condition. My complaint is confined to the incessant frequency of examinations, the growth of the practice into a highly artificial system, the creation of a profession of examining and its correlative, the profession of cramming. In sum, I complain that the trick, the easily acquired and cheaply purchasable trick of answering printed questions should now so largely take the place of solid knowledge and be officially held out as the end of study.

"I do not approve of our present system of examining in elementary schools. But I desire to say nothing about it. It is not my subejct and I leave it to others, merely adding, as it is plain, that at least nine tenths of any over pressure on students arises from examinations and not from simple study. I do not deny that teachers may usefully examine their own students as a help to their own teaching. I do not say that these may not

be one public and formal examination in any prolonged educational curriculum.

Its mischief begins when it grows to be organized into a trade, and the be-all, and the end-all of its own sphere. The less the student be prepared in the technical sense, the better. The more free the examiner be to use his own descretion with each examiner, the more likely he is to judge him fairly. It was so once. All this is now changed in the thirty or forty years since the examining mania set in.

The examiner's business is not with what the student knows, but with how many questions he can answer, and how many marks he can score. All that he can positively say is that the candidate has been brought to the post perfectly 'fit.' The student may be writing down mere 'tips' from memory; but if he makes no slip, and he has been carefully crammed, the examiner has to admit that he has got his marks. The examiner may doubt if the knowledge is real, or is worth anything. He cannot state that the man has failed. If he had time and opportunity he could easily ascertain. But in many examinations there is no *viva voce* allowed; in most examinations the public *viva voce* is not thought decisive, owing to nervousness, temper, accident, and various points of temperament and manner.

Any sensible man who wanted to engage a confidential secretary, or a literary assistant, or a man to send on some responsible mission, would not trust to a mark-sheet, so mechanical, so hurried. At the end of a week, a sensible man could perfectly make up his mind which of the four or five was the best fitted for the particular work required, and he would almost certainly be right.

Knowledge as such, and knowledge to answer papers, are quite different things. Student and examinee read books on quite different plans, if they wish to gain knowledge, or if they are thinking of the examination. The memory is entirely different. The examinee's memory is a ten-day memory, very

sharp, clear, methodical for the moment, like the memory cultivated by a busy lawyer, full of dates, of three different courses, of four distinct causes, of five divisions of that, and six phases of the other. It is a memory deliberately trained to carry a quantity of things with sharp edges, in convenient order, for a very short period of time. The feats which the examinee can perform are like the feats of a conjurer with bottles and knives. The examinee himself cannot tell how he does it. He acquires a diabolical knack of spotting questions in the books he reads.

The keen student of to-day is getting like the reporter of an evening journal, eager after matter that will tell, will make a good answer, capital examination copy.

For this state of things the remedies seem to be these. Let examinations be much fewer—they are ten times too numerous. Let them be much more free—they are over-organized, over-regulated. Give examiners more time, more discretion, more room. The more the teachers are themselves the examiners the better; the less examining becomes a profession and a special staff, the better. Do not set examiners to test teachers, as well as students; do not set up mechanical rules whereby to test the examiner. Believe that it is possible to learn without any prize, money, or reward in view. Trust the teacher, trust him to teach, trust him to examine. Trust the examiner, and do not set up a mill. Above all trust the student. Encourage him to study for the sake of knowledge, for his own sake, and the public good. Cease to present learning to him as a succession of races, where the knowing ones may land both fame and profit.

FREDERIC HARRISON.

ANSWERS TO THE ABOVE PROTESTS.

The above protest against over-examination called out replies published in an "American Supplement" to the Nineteenth

Century of March, 1889, under the title: of "*Examination and Education*," of which the following are extracts:

"*EXAMINATION AND EDUCATION.*"

Introduction.—The signed protest and the accompanying papers on the Sacrifice of Education to Examination, printed in the page of The Nineteenth Century have concentrated English thought and comment on the relative position of examination in education. Educational methods are, however, common property the world over. The development of any system, new or old, in any part of the world, is watched with interest and with care by those similarly occupied in distant lands. Each educator is not only anxious that his own system should be tried by others, but he himself is constantly on the lookout for new ideas. Such being the case, no further reason is needed for bringing forward American comment on the Protest. It is true, indeed, that our educational methods are widely different from those in England. We have no civil service permeating all grades of society, nor even a general university system that can be termed truly National. But we have a multitude of distinct colleges and universities, and tens of thousands of schools, both public and private, all practising methods of examinations; which, while each is separate in itself, is nevertheless rapidly developing into a system which must, ere long, fasten itself upon our educational forces as tightly as it has already done in England. Hence the importance of the Protest to us. It is an unmistakable warning that examinations can, as they have in England, be pushed to extremes. It tells that in England, where the examination system has reached the highest degree of development, it has been found wanting. We are slowly but surely approaching the actual condition of things there. In our colleges and higher institutions of learning a

more liberal feeling is being manifested. Our leading educators, as in England have already learned the lesson that the examination system has been overdone. But lower down in our vast system of common school education, the examination octopus is sending out its arms and grasping all that comes within its reach. Unless stopped in time serious mischief may be done. The cramming of the youngest minds; the accustoming of children to frequent, long, weary, and exhausting examinations; the elevation of the system of marks to the loftiest pinacle of the educational edifice; the uniform grading of a host of differently constituted children by a system of figures; the ignoring of individuality; the suppression of all free and vigorous intellectual grouth; all these features cannot but result disastrously upon the advance of our intellectual development. When we see the brightest and best minds of England coming forward and loudly protesting against the present system of examination as practiced in that country, we may well take the lesson to heart. In the pages that follow will be found a number of criticisms by American educators, not only on the protest itself, but touching on its importance to us, and at the same time presenting a number of characteristic phases of examination methods in this country. BARR FERREE.

It can hardly be said that in the United States examinations have become our masters instead of our servants; and therefore the questions that we have to consider are not so much how we shall remove certain great and flagrant abuses as how examinations, as a means to an end, shall best be adapted to the highest and truest purposes of education. As to examinations as a spur, I for one am frank enough to avow my belief that for college students, and it is of these that I am chiefly speaking, such artificial spurs or stimulants are not helpful, but on the contrary are positively harmful. I am quite ready to admit that at times the spur and the whip of an examination may produce a better showing at the end of the term. But this momentary superiority I believe to be more than counter-

balanced by certain other considerations. Such a forcing process is apt to beget a dislike of the work; it sets up wrong ideals; it keeps wrong ends in view; it substitutes small things for great things; in a word, it tends to deaden those scholarly impulses which most successfully lead on to great results, and puts in their place a slavish devotion to matters of far less importance. And now as to examinations as tests, there is likewise, I believe, not a little popular error. In the teaching of almost every subject the teacher has ample opportunity to ascertain whether or not a pupil is a drag on the class. If he is not, he should be allowed to go on; if he is, he should be duly warned, and then, in case of no adequate reform, he should be summarily excluded. In some kinds of instruction this method is of course not practicable, and consequently an examination must be held at the end of the term; for the opinion must not prevail that the pupil can be at the same time both negligent and successful. But not further than what is necessary to inform the teacher whether the pupil is doing his duty to himself and the class. I believe all term examinations and all marking tests exert a depressing influence upon the higher kinds of scholarship. And this is the reason, I suppose, why great teachers like Pestalozzi and Agassiz and Hopkins have abhorred all systems of marking and have had so little love for examinations. The application of these considerations to present collegiate life in the United States is not difficult. So long as students are in the immature period of the first two years of their course, tests of one kind or another must be used to determine whether all the members of the class shall be kept together. These tests every teacher should be left to apply in his own way. It is entirely safe, therefore, to give to the teacher the right, with the approval of the head of the department, to exclude from the class a negligent or incapable pupil for the remainder of the term. If the teacher prefers to hide his responsibility behind a term examination and a little arithmetical computation, he shrinks from his duty and exerts a demoralizing influence on all the active work of the class.

It is far more wholesome in every way to have it understood that any teacher may, at any time, with the approval of the superior officer, exclude from the class any pupil, that, for any reason, is not doing his work. If such an understanding prevails, remonstrance and warning will ordinarily do their work, if not, the remedy is easy and the results are beneficial. There will be no general belief that "A" failed to pass simply because he was a little less successful in "cribbing" than some of his fellows.

CHARLES KENDALL ADAMS.

For many years I have watched the examinations of young men in our colleges, with reference to the award of prizes and honors, and also with reference to the terms of admission to college and the conditions of bestowing academic degrees. The conclusions to which I have come are these: Daily marks jotted down by the instructor at the close of an exercise, help him to form an accurate notion of the fidelity of his scholars and of their intellectual growth; but it is usually best for him to keep these marks private, and simply for his own guidance, lest, by showing the record to his pupils, he should accustom them to the notion that "work is over," when they have "learned the lesson," "solved the problems," or "written the exercises" acceptably. Examinations held at frequent intervals, say once a month, three or four times a year, or at the end of a certain obvious block of work,—especially if preceded by a brief and spirited review, are as serviceable to the scholars as to the teacher. The true condition of a class can thus be ascertained and recorded. Yearly examinations accustom the scholar to hold on to the knowledge that he has acquired. If rightly conducted, they remind the pupil that he must carry in his mind the general principles and fundamental facts of the subjects he has studied. A good examiner will put very different questions at an annual examination, from those he would set at the end of a month's study. He will endeavor to ascertain whether the subject taught has been

mastered by the individuals examined; not whether every detail can be instantly recalled. Special examinations, at marked epochs in an education,—such as admission to college, competition for prizes, and the attainment of a degree,—encourage young men to put forth their highest and best efforts, to make strong exertions to overcome great difficulties.

D. C. GILMAN.

Under the elective system there has been a great improvement in earnestness where the classes were not too large, but education is certain to become lifeless and formal where the aim is, once in a few months, to get a passing mark. But that examinations can be safely omitted from our colleges under any system is improbable. I have had experience as a trustee in two colleges, in neither of which is the standard of scholarship low, and I am confident that examinations are useful to the best scholars, and essential as tests. A professor in a university established mainly for graduate study, which has sent out many well-trained men to fill professors' chairs, remarked two years since that the most promising men came from all parts of the country, as often from the West and South, as from New England. In other words, it was not true that the graduates of the oldest, best endowed, and most ably equipped colleges in the country, outstripped the graduates of humbler and feebler institutions; on the contrary, a large percentage of the men who had had more personal training, who had been taught, not in large classes, or by wholesale methods, but more individually, became eminent. Some very eminent scholars and teachers, appointed within a few years in our best universities, have come from these small colleges. Our more highly centralized system tends to uniformity, and the examinations are a part of it. But rigid examinations have been held in these newer institutions, and cannot be dispensed with, if high standards are to be maintained. How to combine thorough personal training, with very general opportunities, with the constant uplifting of the multitude, is

the problem before us. But until each student is fired with a divine love of knowledge for its own sake, examinations of some sort will be a part of any system.

FRANKLIN CARTER.

The formidable arraignment of examinations which appeared in The Nineteenth Century for November last, over the names of such illustrious authorities, has induced American educators to consider carefully the application of the remarks to our schools and colleges. The results of the consideration have been to some of us quite reassuring. Whether or not the evils of examination in the universities, the lower schools, and the civil service of England, are as great as represented, it is perfectly certain that, except in isolated cases, they are not in America. The universality of examinations indicates their necessity.

It is possible, though it does not seem so to the writer, that they are a necessary evil. The only question to consider is, therefore, their proper place. So far as our college system is concerned, it would seem that we have largely avoided the dangers to which the English protestants call attention. For years these dangers have been recognized as possible, and our methods modified to guard against them.

ISAAC SHARPLESS.

That the criticisms made by Professor Max Muller and his associates are in general well founded, I think has been for some time the opinion of Americans most familiar with English methods of education. The American college being, to so large an extent, an outgrowth of the English, it is not surprising that the English idea of honors, prizes, and examintions should have to a considerable degree prevailed in them.

I do not believe that the cramming and examination system is anywhere in this country carried to the extent reported in England. But I am sure that in some American colleges too much importance is attached to examination tests, and there

cramming to a lamentable extent takes the place of wise methods of study.

In the ordinary under-graduate work of the American college, the daily tests of the student in the class-room are of more value than the examination at the end of the term, because ordinarily they do not lead to cramming, but cultivate the habit of regular, rather than of occasional and fitful work.

We, in the University of Michigan, hold examinations, and find it impossible to prevent some cramming for them. But the cramming must be regarded as an evil, and it can be reduced to a minimum only by holding examinations rather frequently, without notice, or by refraining from attaching so much importance to them as to regular daily work.

The general principle to be recognized seems to be this: while children, who are too young to appreciate the value of learning and mental discipline for their own sakes, may properly be allured on in the path of study by artificial attractions, yet, when these children are mature enough to know the worth of learning and mental discipline, we should make our appeal simply to their appreciation of the value and charms of knowledge and culture. Our system of educating them should also be such as to encourage them to prize the results of daily, steady, well-balanced work rather than the results of a "brilliant spurt" or of assiduous cramming.

JAMES B. ANGELL.

The answers of Ex-Pres. James McCosh, D. D., LL. D., Prof. Wm. T. Harris, LL. D., and many other College Presidents and Professors, are reluctantly omitted for want of space.

PART II.

SPECIAL CONTRIBUTIONS.

THE NEW LIFE OF THE COLLEGE OF TO-DAY.

The college of to-day is quite unlike the college of fifty years ago. Not only is the course of study more extended, the requirements for admission being much greater, but the work differs in many respects from that carried forward even in the near past. In no other channel of activity have greater changes taken place. The arts themselves have not made greater progress than the colleges, especially the leading wide-awake colleges in this country. Perhaps this progress is due largely to the rapid advancement of the arts, for colleges to meet the demands of the public must not only do much to lead forward the thoughts of the age, but must keep themselves near to the intellectual life of the people. To be useful they must move in the direction of the advancing civilization.

1. The number of lines of work has been greatly increased. Up to a comparatively recent period but one Bachelor's degree was given, and for this degree a rigid course devoted mostly to ancient languages and mathematics was prescribed. Modern languages were discarded; history in most cases was shut out; the sciences occupied a very subordinate position. At the present time extensive provision is made for instruction in science, history is pushing forward to the front, and modern languages are even disputing with the ancient the right of preeminence. To carry forward post graduate work with

ease and success in this country, the student must be able to read with readiness both French and German; and if this work is prosecuted abroad they must understand these as spoken languages. The present is so distinctively a scientific age if the young man spends four or five years in college without investigating the natural sciences, his intelligence in regard to practical themes—themes which reach out into the great industries of the age—is so limited that he will find it difficult to maintain the claim of being liberally educated. The world insists that colleges shall help in the work of civilization. Few young people will turn aside from the channels of advancing thought, stepping out of the current of progress, to take a course of study which, so far as practical life is concerned, is abstract. Therefore many of our wisest educators are profoundly impressed with the conviction that colleges ought at least to keep abreast of scientific development, they should indirectly and, perhaps, directly aid in such development.

Colleges have found it necessary to give attention to social and political problems, and the great questions included therein are elucidated in the history of the successive ages of the world. The lessons are by no means simple; the philosophy of the movements of the race under different forms of government and varied conditions of civilization can only be reached by discriminating thought and careful investigation. Surely that period of a young man's life when he is gaining habits of thought and acquiring a taste for special lines of study should not be spent in isolation from the important theatre where he must in future years act if he performs his whole duty to society and the state. No college can do a very broad work if it remains in the groove in which institutions moved forty or fifty years ago. At the present time four distinct literary degrees are conferred by many of our colleges on the completion of as a many somewhat distinct courses of study; namely, Bachelor of Arts, Bachelor of Philosophy, Bachelor of Science and Bachelor of Letters. This requires and shows

a wide extension of the provision made for scholastic pursuits.

2. There is to-day a large measure of freedom accorded the student in the election of work. Formerly the course of study was wholly inflexible. No choice was allowed; the authorities prescribed the branches to be studied, leaving no room for election on the part of any under-graduate. It made no difference what the predilections might be, or what professional work was to follow, the curriculum was as rigid as the decrees of fate. This has now given way to a system of broad elections. In most of the leading colleges fully one-half of the studies are subject to the choice of the student. Not only is it true that at the beginning of his course he has a choice among several great lines of work depending on the degree for which he will labor, but for any special degree he is allowed to select not less than one-half the branches necessary to earn such degree. The meaning of all this is evident. It is a recognition of some measure of ability on the part of the student to map out for himself the policy through which his preparation for the practical duties of life is to be obtained. It is a concession to the individual. The principle is endorsed that the vocation to be followed may properly be allowed to influence the mental training sought in fitting for such vocation. There is also in this a concession to intellectual predilections. It is an admission that that which awakens in the mind the greatest interest may possess more of value for us than that which is distasteful. Hence the student possesses greater liberty. A distinct place is provided for the exercise of his judgment. He is more of a man, less of a stripling. He thus early begins to train himself for independent manhood.

With some possible evils in this system we believe there is much good. Education to be the most effective, to bring about the best results, should not be the moulding of masses as complex aggregations, but the development of individual lives according to individual peculiarities. To this there must

be a public side, the education should not be so largely private as to be out of relation with the public; but while touching the public on many sides the special demands of the mental energies of each student should be regarded and be the basis of the methods employed. It is certainly a complex and very difficult problem, which perhaps has never been fully solved, how, treating young men and women in the mass as they exist in our schools, to help each one onward in the special direction in which his powers would receive the greatest benefit. In wholly individual work the education is too much in seclusion from the public where these energies must finally be employed; while with that which is solely public, the training being on a dead level, no allowance is made for the unlikeness of faculties, predilections, tastes, in other words for the capabilities of those who are being trained. This problem however receives a solution to a considerable extent through the fiexibility introduced into courses by elective work.

3. A few of our American colleges have introduced another factor which makes a very wide departure from old stereotyped methods, and that is research work. Instead of taking a single text-book and studying it from the beginning to the end; or listening to a course of lectures on some prescribed branch, depending on the lecturer or text-book for his information or knowledge, in which there is strict and narrow tutelage, the student prosecutes lines of work largely independent of the before-mentioned conditions. In the subject he is investigating he takes the wide range of authorities so far as they are accessible, receiving such aid and only so much aid from the teacher as he may need, and studies the subject in the light of all the discussions before him, examining conflicting opinions or theories if such exist, thus developing for himself a body of opinions on the question, which he throws into shape in a carefully prepared thesis. In this he learns how to look up authorities; he gains skill in comparing views, sifting opinions, analyzing theories and reaching conclusions.

Two benefits accrue from this procedure—thoroughness and independence.

Or some *new question* is taken up which has never been determined, or which is new to the student, and which can only be solved by experimental research. Thus methods of original investigation are learned, the capability of making inroads into the world of the unknown is gained, and an intellectual mastery is acquired. Much of his knowledge is procurred at first hand. His work is deeper and more far-reaching than if doled out to him in the lecture room or accepted as the dictum of a single author. And as a result of this method a better preparation is secured for work on any lofty intellectual plain in after life.

4. The college of to-day partakes much more largely of the character of a mental workshop than in former times. In the past conclusions were taught, now methods of reaching conclusions. Then the Professor performed the chemical experiments, now the student has a working laboratory where, with his own hands, he knocks at the door of science and demands admission. Then the books told us of microscopical forms, now with microscope and slides and preparations made by him from nature, the student searches out the delicate tracery of truth in unnumbered material objects. Then the library was a collection of books for general information, or contained the material for deeper knowledge which the few might be interested in searching out; now it is a reservoir of truth which all members of the institution are expected to seek and incorporate into their life. The work of the teacher in former days was to impart instruction to the learner; now it is his office to guide him in finding the wealth of knowledge which he must mine for himself. Even in the languages and mathematics the pupil must do more and the teacher less than heretofore. The pupil if he succeeds is distinctively more of a student and the teacher less of an instructor, the latter supervising the searcher after truth instead of disclosing the truth. The student must find the truth and thus develop the power which he could not

gain if the teacher saved him the labor of looking for it. Hence the college of the latter part of the nineteenth century is less isolated than in the years gone by, it is more practical and has more to do in shaping the intellectual life of the people. It is therefore more valuable, and is worthy of patronage not only by those who expect to enter the professions, but by all who desire to achieve the most complete success in the great world of industry. It is becoming a training school in scholarship for those who seek the highest positions in business and the arts.

THE YOUNG MAN OF POWER.

Colleges are founded to supply provision for the generation of power. It is said that "knowledge is power," but the two words are not synonymous. Knowledge ought to bring to the individual more power than it usually does. The measure of power which knowledge contains depends largely on the mode and spirit of gathering it, rather than on the extent of knowledge gained. The mind may be the storehouse of facts and information to an almost unlimited degree and yet be comparatively feeble. The *how* is much more important than the *what*. To pass an accurate examination on the contents of a book is not an absolute demonstration of power. The mind may be full and at the same time feeble, and it may give expression to that which makes the fullness as a parrot repeats the statements it has heard. Power does not consist so much in what we know as how we have learned it. It is in the gaining immeasurably more than in the having. One principle captured as the result of the concentration of all the energies of thought, the intense action of intellect, brings with itself more power than a volume of facts or principles sought out by another and furnished us without our personal effort.

The value of a college curriculum does not consist in the quantity of things learned, but in the application of the mental faculties required for the mastery of the course. The question then arises, what condition of mental life is it which may rightfully be called powerful? This can only appear from analysis. We have eyes, we have physical senses which connect the intellect with the surrounding material world. This outer material world, and also the great world of human life as appearing in society and government and history presents a field for observation and knowledge. It consists of realities, facts, phenomena, events, all existing in relations one to the other—nothing dissevered from the mass. To become intelligent in regard to this great field of possible knowledge requires observation. And observation is much more than to allow nature, or that which is about us, to come within reach of the senses; for the brute there is as much as this. To observe is not simply to apprehend, but mentally to grasp the object in its relations to other objects, to behold it discriminatingly as a part of the unit which it helps to make. An observer is one whose physical vision is illuminated by mental vision, who reads truth, or seeks to read truth, in the objects discerned. To observe is a great deal more than to open one's eyes on a world of objects, there must be a purpose, and a rational effort to realize such purpose. Greatness, or energy in observation, consists of power minutely and comprehensively to look into the nature of things; a predilection or habit of discerning; a disposition to enter new fields of search in quest of mental treasures. He who sees accurately, quickly, broadly and deeply, has power as an observer, a condition and habit of mental life serviceable in a high degree.

The next element of power to which we call attention as of great value is the logical faculty, the faculty by which the multeity of things or events are put into systems of related parts; the faculty by which science is built up, inferences drawn, and the experiences of the past and present open up to us lessons for the future. This is the work of the understanding, the

elaborative faculty, which inductively and deductively extends the range of our knowledge and organizes the diversities of realities and movements into the unity of related wholes. The product of all this is thought proper, it is what we call reasoning. The processes we employ would be impossible if objects physical, spiritual or mental could or did exist in a state of isolation, if there was not some foundation in unity underneath the multiplicity or mainfoldness with which we have to do. He is an accurate reasoner who correctly perceives and employs existing relations. He is a reasoner with comprehensive sweep of mind whose intellectual powers reach out and construct the unities of thought from a wide range of realities. Accuracy and breadth in the generalizations made; a firm and broad grasp of material, and a working up of such material into harmonious and significant wholes, this is reasoning on the higher and better plane. It is apparent that in this there is power. The majesty of mind is shown to greater advantage in nothing else. Our mightiest men are logicians. Their arguments are unanswerable, their mental products are imperishable. They build for the ages. That which is false perishes at their touch, and the structures they rear defy the assaults of destructive forces. The powers employed are the powers of organization, so that truth shall butress truth, and that which is partial shall give way to that which is complete. Thus to gain the ability to reason accurately, broadly, comprehensively is to acquire power of the highest order, it is to become at home in the realm of the loftiest intellectual life.

There is another faculty of mind to which reference must here be made, it is the faculty of reason, the faculty which discovers and distinguishes universal or fundamental principles. This is the reflective or philosophical faculty, by which we find the explanations of things, the final basis on which truth or reality must rest. That knowledge is the deepest which goes down to first principles; and that tendency or habit of mind which relentlessly carries us onward to the causes or underlying stratum of all empirical truth always works out for us that

which is most satisfactory, and stable in our intellectual possessions. To know things because we know what is underneath them; to know the tree because we know the soil in which it grows and the roots which give the tree nourishment; to know facts because we know the principles out of which they spring; to know the lesser because we know the greater; to know the partial from its identification with the universal, is to find that which is eternal in truth. This is philosophy; and in spirit and mental tendency to be searching for the immutable foundations of knowledge is to train the mind to make the most valuable conquests which intellect can achieve.

In the best and fullest sense, to be a young man of power, the three lines of mental energy, at least, which we have mentioned, must exist in vigorous action. To perceive with broad intelligent vision; to think with logical precision and grasp of truth; to reach down and find the fundamental principles which supply the bases for all that is known by observation and reasoning, is to possess intellectual power capable of the grandest achievements.

The purpose of a college course of study and work is to discipline these intellectual faculties. If this end is not reached in some considerable degree the time and money are wasted. The problem to be solved is the manner of doing this. It is foreign to the aim of this paper to discuss the relative value of the different branches of study in effecting mental discipline. But this much should be said, every student should have in intellectual culture a specific end in view, and labor intelligently to achieve the desired results. He ought to be able, of himself, or from the judgment of his friends, to understand something of his mental needs, and then labor rationally to supply the wants as perceived to exist. And further, no student should be satisfied, however much of learning he may gain, unless he is consciously acquiring strength in some of the special energies of his intellectual life. There should be good ground for the conviction that the power of perception is more discriminating, the logical faculty more reliable and compre-

hensive, and the reflective energies in more vigorous action as the years of study pass by. To graduate from college without such augmentation of power is to fail in the accomplishment of the work for which educational provisions are supplied.

The following Paper is printed in the Year Book not as an expression of personal opinions on political questions, but as illustrating the character of research work. The subjects investigated by the different Research Classes are taken from a wide range of interesting questions which are germane to the general lines of study.

STUDIES BY THE POLITICAL SCIENCE RESEARCH CLASS.

Two Hours per week for the Winter Term.

SOME POINTS BROUGHT OUT IN THE COURSE OF AN INVESTIGATION INTO THE PROCESS BY WHICH REFORM MOVEMENTS INVOLVING POLITICAL ACTION ARE CARRIED TO A SUCCESSFUL ISSUE UNDER POPULAR GOVERNMENTS.

INTRODUCTION.

The above topic was suggested by the discussions of the presidential campaign of last fall. At that time the class in political science was quite divided in opinion as to what was the duty of the conscientious prohibitionist toward the Third Party candidates, and at least one hour was given to the discussion of the matter. In the course of that discussion something like these principles were agreed upon: First, the presumption is against the propriety of leaving the actual issue of the campaign, (i. e., the questions which by virtue of the attitude of the dominant parties are about to be settled by the

election,) and turning aside to express an opinion on matters not before the people; since at all times *the duty of the hour*, though not of greatest abstract importance, has presumably the first claim upon us. But, secondly, this general presumption is modified by the fact that circumstances may be such that very little if any harm can be done by the abstinence of particular citizens from participation in the settlement of current questions, so that if they see their way to the accomplishment of other more important ends by practically disfranchising themselves, they are morally justifiable in doing so. In the practical application of the principles it was seen that a voter might reasonably be excused, if he were morally certain that his vote would in any case make no difference with the result of the election, secondly, if in his opinion the issues were of scarcely any importance, and, thirdly, if even in the case of important issues he found himself unable to reach a decided conviction as to what position he ought to take on the matter at issue. Granting now that in a given case any or all of these conditions had been fulfilled the question still remains could the voter accomplish any good by expressing himself upon a question which clearly was not, so to speak, before the house? Here is the really important question. Does it do any good? Has it in the past contributed in any considerable degree to the ultimate triumph of a proposed reform to have begun voting upon it before it had been taken up by the masses of citizens? Of course the Third Party advocates answered this in the affirmative. In support of this opinion they urged a variety of claims.

First they say everything must have a beginning. If the idea in question is ever to triumph it must make a start, it must have an opportunity to grow. If no one is willing to inaugurate the fashion of voting on the matter, it can never get a majority. In the second place the advocates of Third Party voting allege that this practice has a potent influence on the leaders of the dominant parties long before it has any prospect of direct success. Usually the cause they advocate has the largest fol-

lowing in one of the parties, in which case a large defection threatens the ascendency of that party and so induces the leaders to attend to their demands in so far as it is possible in view of the constitution of the party as a whole. Thirdly it is alleged that voting with the Third Party is the shortest way to bring about the dissolution of existing parties and so lead to a general readjustment of party relations, and the formation of new combinations. In the fourth place the act of thus prematurely voting on a great question constitutes of itself a powerful means of agitation. Other men are set to thinking on the matter. Even if they consider this class of voters fanatical, they can not help the conviction that there must be some real merit in a movement which has such hearty support. Finally it is plausibly argued that the accompaniments of an ordinary campaign, the speeches, the processions, etc., all help to make public sentiment.

When objection was made to these claims as in some cases having no foundation and in others being quite too strong, it was proposed that a special class should be formed to study the history of popular political reforms in order to discover the laws in accord with which such movements seem to grow and the forces by which they are brought to a successful issue. Of course we found that we had undertaken too large a task, still we reached, perhaps, some results of profit. As genuinely popular governments have existed but a short time and that only in this country and England, our investigations were naturally limited to the history of the nineteenth century. The reforms to which we gave most attention were the Abolition of Slavery in this country, and in England, Catholic Emancipation, Parliamentary Reform, the Repeal of the Corn Laws, and the Irish Home Rule movement.

FIRST STUDY.

How Do Reform Movements Grow?

I. D. TRAVIS.

If we revert to the claims made by Third Party advocates we shall see that their first argument implies that there is a close anology between a political party and a plant; that is, that the growth of a political party is gradual and uniform. Their view apparently is this, that such movements must start with an insignificant minority out of which a majority is gradually developed by minute accretions, and that this process of developement is the result of long continued and persistent political agitation by which individuals are converted to the new idea and one by one attracted to the new organization representing it. According to their view this process goes on with an ever-accelerated velocity until the movement triumphs. The argument further implies that however rapidly or slowly the movement grows the original party constitutes the nucleus of the party which triumphs at last.

Perhaps some may go so far as to say that it takes about so many years anyhow for a measure to triumph and the earlier direct political action begins the earlier will come the triumph. Now we propose to ask in the light of history is there any truth in this view of the case? Is the process by which a group of men voting on a given issue increases, regulated by such laws as here alleged? Does the group begin as a tiny nucleus about which the voters, little by little, gather till it includes a sufficient majority to accomplish its purpose? Does it show a uniformly accelerated rate of increase?

In trying to answer this question we have considered most fully the slavery agitation in our own country and some of the great reform movements in England during the present century. As will be remembered the anti-slavery question was

first brought into politics in 1839, when the Liberty party was organized. In the election of 1840 this party presented candidates for the presidency and vice-presidency. From that time until 1860 one or more parties presented this issue at every election. For the sake of giving the common theory the very best chance we assumed that the various anti-slavery parties were really continuous and asked if even on that hypothesis that movement shows the gradual and steady development which we had been led to expect. Supposing that the platform of the Republican party was like that of the Liberty party of '38 and that these principles triumphed in 1860, what law or laws of growth are shown by a consideration of the votes cast at the elections between these dates? Does it not show that the rate of increase was decidedly spasmodic? Thus in the election of 1840 that vote was 7,609, or .23 of one per cent. of the total vote of the country; in 1844 it was 62,300, or ten per cent. of the total vote; in 1852, 156,149, or about five per cent. of the total vote; in 1856, 1,341,264, or 33 per cent. of the total vote; in 1860, 1,866,352, or 40 per cent. of the total vote. If now we analyze this record we see that as a matter of fact the growth in the group of men given to expressing itself at the polls on this question is highly spasmodic, and that the vote of any one year has but little, if any, relation to that of the preceding. The suddenness of growth of this movement is strikingly illustrated by the Free Soil vote of 1848 when, as already shown, the party polled ten per cent. of the total vote of the country while four years previous it polled but three per cent. out of the total vote, and four years later five yer cent. of the total vote. Upon investigation it is found that this sudden increase and decline in the strength of the party is entirely due to local influence in the State of New York. In 1844 the anti-slavery vote of that State was 15,812, in '48, 120,510, and in '52, 25,329. Similarly we might show how other great changes in the strength of the movement are to be traced to various causes that arose suddenly and unexpectedly.

Thus far we have argued from the anti-slavery movement as if it was continuous from beginning to end. But of course that is far from the fact. We leave the hypothesis that there is a real organic continuity in the various efforts to make secure the political triumph of anti-slavery ideas. As a matter of fact we know that in the first place the abolition of slavery was never a real issue—that is a question about to be determined—at any national election. That greatest reform in our national history was brought about by the revolutionary methods of a civil war; so that in fact the principles of the Liberty party of 1839 never triumphed at the polls. But in the second place, history shows us that the triumph of the Republican party in 1860, which is often claimed by the Abolitionists as their own, was, in fact, not only not a triumph of their principles, it was also not a triumph of their party, or any party of which they constituted a nucleus. Even in that year of triumph they had a candidate in the field. (See Wilson's Rise and Fall of the Slave Power.)

But even a cursory study of the anti-slavery struggle will show that it was not carried on by one single party. During the history of that movement several political parties arose and waged the contest with the pro-slavery power. That they were distinct and independent organizations will appear in a comparative study of the various platforms they adopted.

The early Abolitionists were noted for their uncompromising radicalism. They did not hesitate to pronounce slavery a sin against God and a crime against man. They insisted that the government should completely separate itself from all connection with the institution. (See Oliver Johnson's Garrison and His Times.)

The same spirit of radicalism characterized the first political organization connected with the movement. The Liberty party, the first political organization of the anti-slavery struggle, declared in its platform of 1843 that it "demanded the absolute and unqualified divorce of the general government from slavery and the restoration of the equality of rights among men."

Besides the platform plainly stated that the principal object of the party was the overthrow of slavery. Thus it is evident that the party was fully committed to the immediate and complete destruction of the institution of slavery. It sought to accomplish that end by the direct action of the general government.

In 1848 another organization arose and continued the political agitation of the anti-slavery movement under the name of the Free Soil party. Its fundamental principle was to restrict slavery to present limits, that is to the states where it already existed, and so to prohibit it from the territories already free. In the national platform of that year the party declared its opposition to slavery and its determination to resist any further extension of it, and to maintain the freedom of the territories. It also avowed its hostility to any further compromises with slavery and demanded the repeal of those already in existence, at the same time all intention of interfering with slavery in the states where it already existed was disclaimed.

In 1852 it reiterated its opposition to the extension of slavery and declared that "Congress had no more right to make a slave than to make a king, and no more power to establish slavery than it had to establish monarchy." It also declared its opposition to any national legislation for the extradition of slaves.

The above clearly shows that the Liberty and Free Soil parties were distinct organizations with well defined differences. It also shows that they cannot be looked upon as very closely connected in origin. The one sought to destroy slavery through the direct and immediate intervention of the general government. The other sought the same end through restricting it to the territory occupied by it at that time.

In the year 1854, another political party was organized for the purpose of carrying on the anti-slavery contest. Its fundamental principles on the slavery question were essentially the same as those of the Free Soil party, except that they were less radical. In one respect, however, there was a marked dif-

ference. As stated above the Free Soil party demanded the repeal of all compromises with slavery and declared its opposition to any further legislation of that nature.

On the other hand the Republican party, as the new organigation was called, pledged itself to the enforcement of the Fugitive Slave Law and other acts of a similar nature. In its national platform of 1856 it denied the right of any individual or association of individuals to give legal existence to slavery in any territory of the United States, under the present constitution. It also declared that the constitution conferred soverign power upon Congress over the territories of the United States, and that it was the imperative duty of Congress to prohibit slavery from them.

In 1860 it declared in its platform that Congress had the right to prohibit slavery in the territories and denounced as a dangerous political heresy the political dogma that the constitution of its own accord carried slavery into the territories of the United States. On the whole its attitude on the slavery question was much milder than that of its predecessors. It did not express any hostility to the compromises with the slave power or to national laws for the extradition of slaves. Thus it is evident that it differed from the Free Soil party on all points of the anti-slavery policy, except in regard to the prohibition of slavery in the territories. The evidence of the above is conclusive that there were three independent and separate parties successively engaged in the anti-slavery struggle. Now, with this understanding, let us see how political parties actually grew in the anti-slavery agitation. As already stated the Liberty party was organized in 1836, and in the election of 1840 polled .23 of one per cent. of the total vote of the country. Four years later it polled about three per cent. of the total vote. Although the organization was kept up under the name of the Liberty League and candidates were presented at the national elections until 1860, it was never able to poll as large a vote again.

In 1848 the Free Soil party arose. An anti-slavery platform

was adopted and a national ticket placed in the field. At its first election it polled ten per cent. of the total vote of the country. Four years later it polled but about five per cent. of the total vote. That the large size of its vote at its first election was due to the operation of local causes in the State of New York has already been shown. In fact its vote in that State that year was 120,000, or more than one-third the entire vote cast for that ticket in the whole country. At its next election the vote for its ticket in New York was about 25,000. Two years later it passed out of existence.

In 1854 the Republican party sprang into existence upon the anti-slavery issue. According to Wilson eleven Senators were elected and fifteen states were carried by them within one year after the organization of the party, and there were more anti-Nebraska members in the House than of any other one party. (See Wilson's Rise and Fall of the Slave Power.) He further says that the rise of the party was so sudden and spontaneous that it resembled more a revolutionary uprising of the people than a permanent organization. If further proof were necessary to show that its growth was swift and spasmodic it would only be necessary to call attention to the fact that within six years after the organization of the party it gained full control of the general government.

From all this it is evident that there is no organic connection among the various parties that contended for some form of anti-slavery legislation. However it is not claimed that the Liberty party and the Free Soil party did not contribute greatly to the success of the Republican party by building up a strong sentiment in opposition to slavery. Yet the work they did in that line was not different from that done by individuals who acted independently of organizations. Hence we conclude that as parties they were in no sense essential to the success which came. The Republican party as a party triumphed at its second election, and if its history can safely be taken as the basis of scientific induction we can say with confidence that *a political party does not grow like a plant, by insensible increments,*

but rather attains full proportions swiftly and suddenly; like the process of crystallization which follows almost instantaneously upon a long continued course of preparation.

How Reforms Grow—Illustrated in the Great English Movements.

We have thus far confined our attention to the great American reform, let us now consider the chief English reforms and learn whether or not the same law of sudden, spasmodic growth is illustrated in them. And first how is it with Parliamentary Reform?

The agitation for parliamentary reform began about 1745, but attracted little attention for a considerable period of time. Not until 1770 were any schemes for reform brought forward in the House of Commons. According to McCarthy, from that time forward schemes for parliamentary reform were advanced, every now and then, but came to nothing, nor did they ever attract attention enough to give them any considerable following in the House until 1783. Previous to that time motions for reform were repeatedly thrown out without division. In 1783 the tide turned, so that for two years the movement had a very important following in the House. In the year 1785 it even commanded 31 per cent. of the entire vote. Then came another ebb, owing to the absorbing interest in other matters, chiefly the French revolution; so that in 1794 the reform advocates in the House numbered but little more than seven per cent. of the membership. During the next three years the reformers increased again to about ten per cent. From that time forward until several years after the close of the Napoleonic war it made but little gain in the strength of its following; at one time during that period its numbers in the House had dwindled to less than two and one-half per cent. of the

membership. For a number of years after the close of the Napoleonic wars there was great distress among the laboring classes in England, who had suffered much in consequence of the long continued disturbance in commerce and manufactures growing out of those wars. As is natural under such circumstances they looked upon the government as the principal cause of their suffering, and loudly demanded reform in the legislative branch. Under these circumstances the reform movement acquired new importance in the popular mind, and gained considerably in the strength of its following in the House, so that in 1824 its advocates numbered nearly 26 per cent. of its membership. From this time till 1829 their numbers declined steadily. At that time they were only able to control about ten per cent. of the vote in the Lower House. In fact so great had been the decline of interest in the movement that McCarthy says that at the beginning of 1830 it seemed as if the reform movement would die outright. Yet so great was the change in public sentiment upon that question in the early months of 1830 that when the election took place the Tories lost 50 votes in the House and nearly all their influence in the country. When the Parliament assembled in October, 1830, a Reform Ministry was placed in power. That ministry appealed to the country in March, 1831. The result of the election was a great victory for the reformers. Substantially the same bill was introduced that the government had been defeated on in the former Parliament. The motion for the second reading was carried by a vote of 367 to 231; the vote on the same motion the year before was 302 to 301 in favor. September 22nd the bill passed the House, but was defeated in the House of Lords. Parliament reassembled in December. On the 18th of that month the bill passed the House by a vote of two to one.

The above stated facts plainly show that the reform movement in England was characterized by suddenness of change. Although it was agitated more or less for three-quarters of a century, it had not in 1830 reached a development that promised

any immediate results, in fact as before stated it was apparently on the point of complete collapse. McCarthy says, "Nothing could well have seemed gloomier than the prospect of popular reform in England. The most courageous of reformers must have felt their spirits sink within them as the early months of 1830 went on." From such a condition it suddenly grew within the space of two years to a power that carried everything before it, and that too in the face of the most determined opposition of the aristocracy.

A study of the other recent reforms of England shows the same thing. Catholic Emancipation is a good illustration. The agitation of that subject began in 1778 and continued down to 1829. It did not attract much attention at first nor did the movement acquire any considerable strength until about 1812, when nearly 33 per cent of the vote of the House of Commons was cast for it. From that time onward Ireland was almost on the verge of revolt till 1829 when the Bill was passed. From 1827 to 29 the suffering among the peasantry, which they attributed to the unjust laws against the Catholics, was so evident that civil war could not be prevented much longer unless some relief was furnished. Hence the Relief Bill was passed by the government to avert such a calamity. Thus the immediate cause of its passage was entirely foreign to the political agitation of the question.

The anti-Corn Law movement is a forcible illustration of the same thing. The agitation for their repeal began in 1822. It was conducted with a method and zeal that has seldom been equalled; yet as late as 1845 less than 12 per cent of the membership of the House of Commons were in favor of the repeal. Sir Robert Peel came into power pledged to the maintenance of the Corn Laws; yet so great was the pressure brought to bear on him in consequence of the scarcity of the food of supply that he not only consented to support an anti-Corn Law measure but introduced the bill himself which was carried in 1846.

If it were desirable the same truth might be still further illus-

trated by a more extended study of reforms, but we think that the foregoing is sufficient to show that as a matter of historic fact reforms do not grow little by little each year as an organism until they become strong enough to control the government and thereby accomplish the end for which they were originated.

HOW REFORM MOVEMENTS GROW, CONSIDERED A PRIORI.

HOMER FOLKS.

In the preceding section it has been demonstrated from historical facts, that the development of the successful political party is rapid, not gradual; that it is analogous to a process of sudden crystallization rather than to one of gradual growth. Let us now consider the case from an *a priori* standpoint.

The assertion that the political party is organic in its growth seems, at first thought, very plausible. Orderly development is such a favorite conception in the thinking of the present day that it seems very natural to use the terms in speaking of the genesis of the political party. The idea of evolution has gained such complete ascendency in the domain of physical science, that its champions are everywhere seeking to apply the same idea to moral and social phenomena and we hear of the evolution of an idea of a doctrine, of society, of the state, etc. It might seem natural therefore to speak of the evolution of a political party. The term evolution in all such connections is obviously indefinite, but it can be safely said that it implies at least a continuous, orderly development from within.

The error which invalidates all conclusions drawn from such premises lies in the unconscious assumption that the workings of the laws of cause and effect can be traced with the same ease and certainty in the moral as in the physical universe. Through

our whole course in physical science we have found formulas like these: A given force raises a weight of five pounds through a certain distance in one second; in two seconds, it raises it twice the distance; in four seconds, through four times the distance: twice the given force will raise a weight of ten pounds through an equal distance; four times the force, a weight of twenty pounds; etc.

If now, following the analogy, it were true that a certain amount of argument convinces one man; twice as much, two men; a certain amount of agitation adds one voter to a party, twice as much, two voters; etc., the claims for the steady growth of the political party could be substantiated. The nucleus of a party remaining loyal, by successive addition they *must* at last achieve success.

Universal experience however tells us that the laws governing moral forces can not be thus formulated. An influence potent to-day, may be powerless to-morrow. To every reformer it may be truthfully said, "Thou knowest not whether shall prosper, either this or that." Whether a given moral force will affect many persons, few or none can not be previously determined. The influence that moves one man to action may have a like effect upon a hundred or a thousand. We are now dealing, not with inert units acted upon solely by external forces, but with units of personality whose actions must be self-determined, and it is a necessary condition of true spontaneity that its action can not be foretold. So it can not be said that a succession of equal efforts will produce a succession of like results. Indeed considering the essential sameness of men, the universality of the ideas of reason and the moral nature, the presumption would be in favor of simultaneousness rather than of consecutive action.

Secondly, all political success involves the simultaneous action of a majority. A minority however large casting its votes for a certain measure through any series of years can attain no direct results. The majority must be ready to act and to act *together*. Now how will this simultaneity of action be brought

about? Shall each man exercise his political prerogatives directly in behalf of any measure as soon as convinced of its justice? Let us try to place a similar case. A hundred men are constructing a highway. Some obstacle is in their way, which their united strength can just remove. A large majority are in favor of leaving it in its present condition. A minority are in favor of removing it. Will the minority best secure their end by immediately exercising their strength in an effort to remove the obstacle? Will the sight of five men struggling to lift a load that requires the strength of a hundred incite a sixth man to assist them unless he thinks the other ninety-four are also ready to do so? Indeed, when the average man sees five, eight or ten persons striving in vain with the task of an hundred is he not thereby quite certain that the others, the majority are *not* yet ready to act? Even though he be unemployed he is not likely to join in the hopeless enterprise. But if numerous other duties are presenting themselves, the chances that he will do so are still farther lessened. Is not this precisely the situation of the average voter? He is not a "man of one idea." The business of government is so extensive; it includes so many interests, economic, educational, and moral that he feels that many righteous causes need his assistance as a citizen, even though the specialist in any one of these lines may assert that his is the only question worth considering. The average citizen is likely therefore to give his immediate assistance to that measure not necessarily which he regards as most just, but upon which he thinks the majority are about to express their opinion.

Finally, we notice that in the settlement of any political issue there are two distinct processes: First. The growth in the minds of citizens of the opinion that the proposed measure is needed and that it is a legitimate subject for state action, i. e., the growth of public sentiment; Second. The direct political measures undertaken to secure the end in view. From the nature of the case it is evident that the former process, i. e. the growth of public sentiment, must begin before and keep in advance of the latter, i. e. political action. It is also a matter of com-

mon acceptation that the latter does not long delay after the completion of the former. The will of the people when fully aroused does not long brook delay on the part of legislators. The extent to which public conscience is awakened on any moral issue is, without doubt, greatly overestimated by the early agitators of the question. Compare the actual vote for constitutional prohibition in any state with the estimate of the leading friends of the measure. It is the business of the politician to champion that cause which will attach the greatest number of votes. Since, then, public sentiment must precede and keep in advance of political action, and since an adequate public sentiment is quickly followed by suitable political action, if the development of the former is spasmodic *then that of the latter must be spasmodic also.*

What then are the facts in regard to the growth of public sentiment. An increase in public sentiment on any question means that men have changed from attitude of indifference or opposition to that of support. What forces determine the time at which opponents of a measure become its supporters? Adequate argument will doubtless be suggested by many. Admitting that this may be the determining factor with scholarly minds, does not experience prove that *example* is the immediate cause which induces most men to take any new position. Argument may remove little by little the foundations of any conviction, but the average voter does not leave his place of refuge till the migration promises to be general. The truth of this statement is demonstrated in the workings of every public assembly. The orator does not expect to win an audience in his propositions one by one. They move *en masse* or not at all. The stampede is one of the oldest phenomena of public gatherings.

Just so it is with the formation of opinion in society. While the indirect preparation may be exceedingly slow and may spread over many years, yet the actual change of the great mass of society from a condition of opposition or indifference to hearty advocacy of a proposed reform is in the nature of things

more or less sudden and rapid. But, if public sentiment is thus swiftly formed, it is needless to say that the political action which follows partakes of the same abruptness.

We conclude therefore that from the nature of the case as well as from the evidence of history we may confidently affirm that the formation of a group of men who undertake to use their political prerogatives to advance a given reform, is a process usually abrupt and rapid; that such a group may easily be large enough to win at its very first attempt, is almost certain of success at the second attempt, and, if it does not succeed at the third, can scarcely expect ever to triumph *as an organization.* (Of course its principles may triumph when the times have ripened.)

In addition to the above the class have prepared two other studies on "The Effect of Bolting in Advancing any Reform" and "Circumstances the Most Efficient Forces for Bringing Reform Movements to a Successful Issue." The lack of space, however, makes it necessary to omit these.

VOLAPÜK.

After having heard so much of the *world's language* it will not be amiss to take up a few pages in our Year Book to state the essential points of the grammar of the new language.

It will be well for us to examine the advantages and disadvantages of this invention before passing judgement upon it.

The language is the invention of a German Catholic priest who lived in the South of Germany, repairing to the famous old city of Constance, known for its council in 1415 when Huss was burned.

Rev. Johann Martin Schleyer,— this is the name of the genius that bestowed on us this great production whatever may be said against it—was a great lover of languages even as a

student at the gymnasium. This fondness for languages he kept up all his life until he had made the acquaintance of more languages than he counted years at the time of his death in Paris last year in his 57th year.

In 1879 he first published his work which has made wonderful progress since in Europe and out of Europe. Volapük societies are increasing, and the number of disciples is differently estimated from two hundred thousand upward to a million.

In several countries Volapük is taught at higher seats of learning and in Paris are stores where Volapük is spoken.

But without entering upon a discussion of the evident desirability of such a language or upon the probability of its possible adoption for commercial or missionary purposes, I venture to give a short synopsis of the grammar of Volapük.

If perchance I should awaken an interest in the study of Volapük then I shall endeavor to write a second part in the next issue of the Year Book.

If only a few students may profit by this feeble attempt at writing a short Volapük grammar, then I shall feel amply repaid for writing this paper.

Pronunciation.

CONSONANTS.

There is neither q nor w in Volapük. Of the other consonants g is always hard, j is pronounced like sh, c like j, z like ts; y is always consonant. The other consonants are pronounced very much as in English.

VOWELS.

The vowels a, e, i, o, u, have but one fixed sound. A is pronounced like a in *a*ther; e like e in th*ey*; i like e in b*e*; o like o in n*o*; u like oo in m*oo*d.

MODIFIED VOWELS.

Ä is pronounced like ai in fair; ö is pronounced like ö in German, like eu in French; Brandt in his scholarly German Grammar says ö has the lip-position of o, the tongue position

of e; ü like ü in German, like u in French; according to Brandt ü has the lip-position of u, the tongue position of i.

There are no dipthongs in Volapük, every vowel letter must be pronounced seperately as in Italian.

The use of capitals is the same as in English, except that words derived from proper nouns do not begin with capitals.

The accent rests on the last syllable.

Do not pronounce Volapük words as in English, but according to the rules on pronunciation as given above.

DECLENSION.

Fat, fata, fate, fati. Fats, fatas, fates, fatis, father.

Doab, doaba, doabe, doabi. Doabs, doabas, doabes, doabis, dollar.

From the above examples it will be noticed, that the nominative is the root without endings, that the genitive ends in a, the dative in e, the accusitive in i. By adding an s to the cases in the singular the corresponding cases in the plural will be formed.

Every word susceptible of declension is declined in this way. Proper nouns take *de* to form the genitive and *al* to form the dative before them.

Decline: Del, day. Vig, week, Mul, month. Yel, year.

Volapük uses neither definite nor indefinite articles.

All nouns are masculine unless ji should stand before the noun in which case the noun becomes feminine:—

Pul, boy; jipul, girl. Jeval, horse; jijeval, mare.

Compound nouns are formed by putting the defining word in the genitive before the defined word: Volapük, world's language; nifatim, snowtime, winter, etc.

ADJECTIVES.

Volapük adjectives end in *ik* and follow their nouns without being declined except when an ambiguity might arise, in which case the adjectives precede their nouns and partake of the same endings as their nouns.

The comparative ends in *um*, the superlative in ün:—Gudik,

good, gudikum, better, gudikün, best. Blefik, short, blefikum, shorter, blefikün, shortest.

ADVERBS.

Adverbs end in *o* in the positive, comparative and superlative when derived from adjectives:—gudiko, well; gudikumo, better; gudikūno, best.

A great many adverbs may be formed by adding *o* to the other parts of speech:—Domo, at home; neito, at night.

NUMERALS.

Bal=1; tel=2; kil=3; fol=4; lul=5; mäl=6; vel=7; jöl =8; zül=9.

By adding *s* to the above words the corresponding tens are formed:—Bals=10; tels=20; kils=30; fols=40; züls=90.

In numbers made up of tens and units, *e* is put between the tens and the units:—Balsebal=11; kilsekil=33; lulselul=55. Tum=100; foltum=400; mil=1,000; balion=1,000,000; balmil jöltum jölsezül=1889.

Volapük ordinals are formed by adding *id* to the corresponding cardinals:—Balid=1st; telid=2nd; kilid=3rd; zulid=9th; balsid=10th; velsevelid=77th; balmiljultumjulsezülid= 1889th.

Na is added to the cardinal to express a multiple of the given cardinal:—Folna=four times; lulsna=fifty times but folidna means the fourth time; lulsidna, the fiftieth time and prefixing *a* before the cardinal distributive numbers are formed: a bal, one at a time; a fol, four at a time. Ik added to the cardinal indicates fold, nik added means of a kind: kilik, threefold; zūlik, ninefold; kilnik, of three kinds; balsnik, of ten kind. Fractions are expressed by adding dil to the denominator with the numerator following: Luldils tel 2–5, that is 5 parts, 2 of them taken; folsefoldils folsebal 41–44.

By suffixing ul to the cardinals in regular order the names of the months are obtained from January to October incl. November is babul, December is batul. Balul, January; telul, February; kilul, March; folul, April; lulul, May; mä-

lul, June; velul, July; jölul, August; zülul, September; balsul, October.

Suffixing üdel to the cardinals beginning with bal we shall get the names of the days of the week: Balüdel, Sunday; telüdel, Monday; kilüdel, Tuesday; folüdel, Wednesday; lulüdel, Thursday; mälüdel, Friday; velüdel, Saturday.

To express the time of day use düp followed by the cardinal or ordinal:—Düp fol (folid) e foldils bal, a quarter past four. Düp zül (zülid) e minuts mäl, six minutes past nine.

PRONOUNS.

A. Personal Pronouns.

Ob, I.	obs, we.
ol, thou.	ols, you.
om, he.	oms, they.
of, she.	
os, it.	
on, one, they.	(Indefinite, French on, German man.)
ok, reflexive.	oks, reflexive.

When addressing one person, ol is used, ols when two or more persons are spoken to.

Personal pronouns are declined like nouns.

Singular	N. Ob, I.	Plural	N. obs, we.
	G. oba, of me.		G. obas, of us.
	D. obe, to me.		D. obes, to us.
	A. obi, me.		A. obis, us.

B. Possessive Pronouns.

Possessive pronouns are really adjectives adding ik to the personal pronouns to form the corresponding possessive pronouns or adjectives. The possessive pronouns are treated like adjectives; they stand after their nouns and remain uninflected.

The genitive of the personal pronouns may be used in place of the possessive pronouns when too many words ending in ik would follow each other.

Obik, my; olik, thy; omik, his; ofik, her; obsik, ours; olsik, yours; omsik, theirs, etc.

Mot e son ofik, the mother and her son. Dom obik, my house.

C. Demonstrative Pronouns.

When the demonstratives are used as pronouns proper, then they are declined, when used as adjectives, then they are treated like adjectives.

At, this; et, that; it, self; ot, same; ut, he who.

Mans et, those men; Mans at e uts, those men and those who.

D. Interrogative Pronouns.

Kim, kif, kis, who, what? are used absolutely or independently, kiom, kiof, kios, which? are used like adjectives. Kim, masculine, kif, feminine, kis, neuter.

Kim binom man et? Who is that man? Kimi sevob, whom do I know? Kisi sagon, what do they say? Läd kiof binof is? Which lady is here?

E. Relative Pronouns.

Kel, who, that; kelof, who, that; kelos, that, which. If the relative is preceded by ai, we shall get the meaning of the English whoever, etc.

Man kel, a man who; man kela, the man whose.

F. Indefinite Pronouns.

Alim, everybody; ans, some; balvotik, one another; bos, something; ek, somebody; it, self; nek, nobody; nos, nothing; somik, such; alik, each; anik, some; mödik, much; mödumik, several; nemödik, little; nonik, none; at, the same; sembal, any; teledik, many a; valik, all; votik, another, etc., etc.

VERBS.

Of voices there are the active and the passive. The reflexive is the active voice with ok added to it.

The persons are indicated by suffixing the personal pronouns to the root which is generally a noun.

The simple tenses of the indicative are formed by prefixing

time vowels or augments before the root of the verb; the derived compound tenses are formed from the simple tenses by suffixing the proper terminations.

The augment a (usually omitted in the active) is used to indicate the present tense:—(a)logob, I see; ä is used to indicate the past or imperfect.—älogob, I saw; e is used to indicate the perfect:—elogob, I have seen; i is used to indicate the past-perfect or pluperfect;—ilogob, I had seen; o is used to indicate the future:—ologob, I shall see; u is used to indicate the future perfect:—ulogob, I shall have seen.

The simple, progressive and emphatic forms are all expressed as in German by the simple tenses: (a)logob, I see, I am seeing, I do see, etc.

There are no auxiliaries in Volapûk, the compound tenses being indicated by time vowels.

Conjugation of the Indicatives of the Active Voice of Lil.

PRESENT INDICATIVE.

Lilob, I hear, I am hearing, I do hear.
lilol thou hearest.
lilom, lilof, lilon he hears, she hears, they hear,
lilobs, we hear
lilols, you hear
liloms, lilofs, they hear (men), they hear (ladies).

PAST PRESENT INDICATIVE.

Älilob, I heard;	älilobs, we heard;
älilol, etc.	älilols, etc.
älilom,	äliloms,

PERFECT INDICATIVE.

elilob, I have heard;	elilobs, we have heard;
elilol, etc.	elilols, etc.
elilom,	eliloms, etc.

PAST-PERFECT OR PLUPERFECT INDICATIVE.

ililob, I had heard;	ililobs, we had heard;
ililol, etc.	ililols, etc.
ililom,	ililoms,

FUTURE.

olilob, I shall hear; olilobs, we shall hear;
olilol, etc. olilols, etc.
olilom, oliloms,

FUTURE PERFECT.

ulilob, I shall have heard; ulilobs, we shall have heard;
ulilol, etc. ulilols,
ulilom, uliloms,

The passive voice is formed by taking the same vowel series used for the active with *P* before the time vowels. In the passive the time vowel *a* for the present indicative must not be omitted.

Palilob, I am heard; palilof, she is heard;
Pälilob, I was heard; pälilon, somebody was heard;
Pelilob, I have been heard; pelilobs, we have been heard;
Pililob, I had been heard; pililoms, they had been heard;
Polilob, I shall be heard; polilofs, they shall be heard;
Pulilob, I shall have been heard. pulilols, you shall or will have been heard.

Time vowels are used to form adverbs of time or adverbial phrases denoting time:

Del, day. Vig, week;
adelo, to-day; avigo, this week;
ädelo, yesterday; ävigo, this week;
edelo, day before yesterday; evigo, two weeks (a fortnight) ago;
idelo, three days ago; ivigo, three weeks ago;
odelo, to-morrow; ovigo, next week;
udelo, the day after to-morrow uvigo, week after next.

Mul, month. Yel, year.
amulo, this month;
ämulo, last month; etc.
emulo, month before last;
imulo, three months ago;
omulo, next month;
umulo, month after next.

INFINITIVE.

The infinitive, active and passive, ends in ön:—Logön, to see, but ön may be added to the root preceded by any time vowel:—Elogön, to have seen, etc. If to signifies "in order to," the infinitive must be preceded by al. The English verbal nouns in ing must be translated by the infinitive. The infinitive when used as a verbal noun is declinable.

PARTICIPLE.

The participle ends in öl and may be added to the root preceded by any time vowel:—Tidöl, instructing; petidöl, having been instructed etc.

IMPERATIVE.

The imperative ends in öd preceded by the personal pronouns:—Tidolöd, teach (thou); Tidolsöd, teach (ye).

OPTATIVE.

The optative in ös, expressing a request, a wish, a desire:—Melop flolomös, may America prosper !

SUBJUNCTIVE.

The subjunctive adds la unaccented to the personal pronouns of the respective tense with a hyphen between the pronouns and la:—If älabob-la moni ämekobob ofe legivi, if I had money I would make a present to her.

CONDITIONAL.

The conditional adds öv without hyphen in place of la; älogomöv, he would see, etc.

THE INTERROGATIVE FORM.

A sentence is made interrogative by putting li without stress with a hyphen before or after the verb, usually after the verb, unless the verb should end in l' or in several consonants. Pûkom-li nelijapûki? does he speak English? Li-pûkoms flentapûki? do they speak French?

PREPOSITIONS.

Prepositions govern the nominative case:—

Al, to, toward(s)	nebü, by side of.
du, during.	new, without.
in, in.	plo, for.
ko, with.	pos, after.
lâ, near.	sis, since, etc.

ADVERBS.

Adverbs not formed from nouns and adjectives:— Li, yes; no, no; nu, now; poso then; kiöp, where; kiöpa, whence; kiöpi, whither. Us, there: usa, thence; usi, thither. Is, here; is a, hence; isi, hither.

CONJUNCTIONS.

Conjunctions do not govern the subjunctive in Volapûk:—

ab, but;	if, yes;
das, that;	klndo, then;
dat, in order that;	u, or;
e, and;	etc., etc.
do, though.	

INTERJECTIONS.

O! oh!	bafö! bravo, good!
a! ah!	fi! fi! etc.

ORDER OF WORDS.

The main principle consists in placing the dependant words before the determining words.

Subject with its modifiers, then predicate or verb with its modifiers and finally the objects (accusative, genitive, dative).

The negative no precedes the word it denies.

FREDERICK LUTZ.

PART III.

APPLIANCES AND WORK AT ALBION COLLEGE.

LOCATION, BUILDINGS, AND RESOURCES.

Location. — Albion College is located in Albion, a thriving young city of 5,000 inhabitants, situated in the southern part of Calhoun county, near the central portion of the lower Peninsula of Michigan. It is on the main line of the Michigan Central Railroad, 95 miles west of Detroit. The facilities of communication are all that could be desired. The Lansing Division of the Lake Shore and Michigan Southern crosses the Central at this place, providing direct connections with the main line of the Lake Shore on the south; and at the north with the Grand Rapids Division of the Michigan Central, the Detroit Lansing and Northern, the Grand Trunk, and other lines. The country about Albion possesses much of scenic beauty and comprises some of the finest farming lands in the state.

Campus.— The College Campus contains about twenty acres of ground, fifteen acres lying on the west side of the buildings in the direction of the business portion of the city. The balance of the ground is on the east side of the buildings, and is principally covered by a beautiful grove. The campus is by nature a charming part of the city, and has been much improved by art.

Buildings.—The buildings occupy the highest portion of the grounds, some forty feet above the level of the principal busi-

ness street, and are reached by a gradual ascent. They are a little less than one-half mile from the center of the city. There are three main buildings contiguous to each other, which are built of brick and stuccoed. The central one of these is 40 x 100 feet, and four stories high. It is devoted principally to the Conservatory of Music and the Department of Natural Science. One half of the second and third stories is occupied by the Museum, and the other half by the Chemical and Biological Laboratories. The other two buildings are each 46x80 feet, and three stories high. One of these is the Chapel and Library building, which also contains the Business Office and President's room. The other is divided up into Lecture and Recitation Rooms, containing in addition, the Halls of the two College Literary Societies and the Art Studio. On the campus, also, stands the Astronomical Observatory, which is admirably equipped. Just across the street from the campus on the North, is the President's House, which overlooks the campus on the West, and is one of the finest residences in the city.

Resources.—The college possesses about $200,000 of productive endowment, and $125,000 of unproductive endowment. Measures are being pushed to endow an Alumni Professorship, which are meeting with gratifying success. The funds for carrying forward the work of the institution are derived from the productive endowment and students' fees. In the College and Preparatory School no tuition is charged. An incidental fee of $5.00 a term is collected from each student. A statement of tuition charged for instruction in music, painting, commercial studies and oratory will be found on a later page of the Year Book. The Matriculation fee on entering the college is $5, and the Graduation fee is $5. The Endowment Fund is in the hands of an Endowment Fund Board, which exists in pursuance of special State Statute, said Board being authorized and required by law to pay over to the Trustees of the college only the interest of the fund they control.

KIND AND RELATION OF WORK.

The curriculum of college studies of half a century ago has undergone, in many institutions, very extensive modifications; and those schools that adhere rigidly to the past are suffering in comparison with the class referred to. The ancient regime restricted the lines of study almost wholly to Latin, Greek and Mathematics, with something of Mental and Moral Philosophy. In the truly modern college a good deal of attention is given to the modern languages, to the sciences, to history, and to studies which are purely English. It may be remarked that there is much unreasonable prejudice against the ***study of the languages***. While they should not monopolize the attention of the student to the exclusion of everything else, they rightfully may claim considerable of his time if the fullest culture is sought for. No other studies are more practical. In every department of life we are constantly employing language. Not only is this true of the clergyman, the lawyer, the statesman and the journalist, but it is true of every private citizen who has the least to do with public affairs. The clerk in the store, even, employs language more than he does arithmetic. Language is the repository and vehicle of thought. As listeners, as well as speakers, the significance of words and the content of sentences employed depend on the depth and comprehensiveness of our knowledge of language. Indeed, we think through language, and the reach of thought is limited by the scope of the language as understood by us. As man is a being who uses language more than anything else—employing it in business, in social life, in intellectual pursuits, in his relation with others, and in the subjective development of mental power—the more profoundly it is studied and the more meaning we are able to put into it, the grander and

more practical will life become. In the foregoing considerations nothing has been said of the special forms of mental culture promoted by the study of language. The benefit thus obtained is justly regarded as exceedingly valuable, and it is generally conceded that it cannot, in every respect, be gained from any other line of study.

The ***partiality for mathematics*** grows out of two forms of service rendered by it; one of these, as the instrument of business and for the developement of science; the other, as helping to generate a habit of accuracy of thought and power of attention. Mathematics, therefore will always be given a large place in the college curriculum.

The ***growing interest in science*** has compelled colleges to give it a larger place in the four years of study than it formerly occupied. In some institutions the traditional aristocracy and exclusiveness of the past have not been sufficiently dissipated to allow the study of nature its proper share of time. It should be borne in mind that he who reads intelligently the book of nature is not only in communion with truth under conditions very favorable to the inspiration of thought, but a habit of close observation is acquired which is exceedingly fruitful of scholarly attainments. One of the most important acquisitions is the spirit of intelligent-searching after truth.

It is only within a few years that the ***study of history*** has occupied to any extent the attention of our American colleges. That the lessons we may learn from history are of great value to us is indisputable. And unless colleges choose to incur the odium of deliberately rejecting that which is universally recognized as highly important, historic studies should have a leading place in these institutions of learning.

Our ***mother tongue*** has usually received but little attention in the colleges of this country. The ancient languages were universally conceded to be of vital importance, while the English was pushed aside only as it came into notice through the Latin and Greek. It is time that the folly of this was clearly perceived, and a radical revolution effected. While all

languages should be considered a unit, and should be studied in their relations one to the other, the English speaking student should have his eye always on the English, and make all other linguistic lines converge towards his mother tongue.

There is another broad field for colleges to occupy in which they come closer to the daily life, and hear the heart-throbbings of the public. We speak of the ***problems of Political Science, Social Science and Social Reforms.*** These problems should receive special attention if the college would do for the public all the work which may reasonably be demanded of it. And problems of this nature should be pursued not simply by the perusal of a text book, or by listening to formal lectures, but by exhaustive research, the studying of the questions involved, from all sides. Thus will the knowledge gained be more exhaustive, the opinions formed more independent, while the most successful method of looking up the data for intelligent judgment on practical questions will be learned. In nearly every line of study the college ought to put the pupil in the way of going outside of the teachings of the text book, and making broad and extensive researches.

It is evident that any college fails to achieve the best and most reliable results unless it finds ***God at the foundation of all truth,*** unless it carries the student into the sphere of ultimate divine causation, as a reason for, and explanation of, all science and conditioned being. Intellectually the work is incomplete, the scholarship rests on the sand, unless God is the support of the great temple of truth that is reared. The race can never be strong without a God, and colleges which do not aim to bring the Unconditioned Absolute Will into the problem of nature, tolerate weakness instead of generating strength.

There are several facts to which we call attention.

We have arranged four distinct and radically unlike courses of study: the Classical, the Latin Scientific, the Scientific and the Letters Course. ***In the Classical,*** the Latin and the Greek hold a prominent place. In all colleges, both in Europe and America, until quite recently, there was no other course.

And at present, many scholars maintain that more culture is gained from this line of work than from any substitute that has been offered.

In the Latin Scientific the Greek is replaced by other studies, but *requiring the same amount of time for their mastery.* These studies are principally—though not wholly—in science and mathematics. But students who desire to make a specialty of Latin or some of the modern languages, can substitute further work in these languages for such branches in science or mathematics as have been introduced into this course in place of the Greek found in the Classical Course. This will make the course pre-eminently linguistic, the same as the Classical Course. The degree conferred will be Bachelor of Philosophy.

In the scientific course there is no ancient language in the college curriculum, and but one year of required Latin in the Preparatory, with also one year of either Latin or Greek. But the amount of Mathematics, Science and History, is much increased.

The college has established ***a Letters Course*** in which no Latin or Greek is found, but special attention is given to the study of the English Language, including the Anglo-Saxon.

The English course of the High Schools will, in the direction of studies pursued ordinarily afford a proper preparation for this line of work. Provision is made for the introduction of a certain amount of study in Music, Fine Arts, Oratory or Commercial Branches in case the student desires to elect the same. The exact character of this course will be explained later on in the Year Book.

The degree the student will receive on graduation is determined by the course he has pursued up to the Junior Year, except in the course that prepares for the degree of B. L.

In the Classical, Latin Scientific, and Scientific courses the Junior and Senior Years are devoted wholly to elective work, except Psychology, Logic and one term of Chemistry, which are required of all students who are candidates for a degree. Several studies in the Freshman and Sophomore years have recently been made elective.

The following is a skeleton exhibit of the ***Departments of the Institution:***

College.	Providing four courses of study requiring the same time—four years—for completion. Conferring four first degrees, B. A., B. Ph., B. S., and B. L.
Conservatory of Music.	Providing a four years' Musical Course. A Diploma granted on graduation. Providing a six years' Musical and Literary Course. Degree of B. Mus. conferred.
School of Painting.	Providing a four years' Painting Course—student receiving a Diploma on graduation. Providing a six years' Painting and Literary Course. Degree of B. P. conferred.
Preparatory School.	This school prepares for each of the four College Courses, and covers a period of four years of instruction.
Academic Department.	This department is arranged for students who do not desire to prepare for college, or take any of the languages.
Commercial Department	This department is arranged on a plan to furnish considerable literary work with Commercial studies, so as to send out intelligent business men.
Department of Oratory.	This department has just been created, and helps to round out the work of the institution.

HIGH SCHOOLS AS PREPARATORY SCHOOLS.

The ***Public Schools are the most valuable provision*** for the education of the mass of the people found anywhere in this country. They reach the largest number of persons, supply the foundation of our civilization, and create conditions essential to the existence of free government. But ***colleges*** are doing a work of great importance. In some respects it must be quite unlike the work of even our best High Schools. It should be of a different grade, not only because the branches of study are of a higher order, but because of the greater maturity of mind of the pupil, the collection of more abundant means of illustration and research, and of the special methods it is possible to employ, contributing to more independent and thorough scholarship. The recitation becomes a less important factor, gradually giving place, more and more, to self-reliant personal research in the determination of truth, under the guidance, or with the advice, of men who labor in special lines of investigation.

For a few years past the conviction has been growing, that ***colleges should offer special advantages,*** not only to young persons who expect to enter upon a professional career, but to all who have high aims in life. The fact has come to be appreciated that, for the development of intelligent manhood, for the best discharge of the duties of citizenship, for meeting the demands of the highest forms of the arts, and for keeping pace with the advancing civilization of the age, the large class of persons who will carry forward the business and industries of the world would derive incalculable benefits from liberal culture. But how can ambitious young men and women, who have formed high ideas of excellence, ***prepare for college?*** This preparation must, in most cases, be obtained in the High Schools, if gained at all. And while these schools, perhaps,

may retain their pupils under instruction a sufficient length of time to prepare them for college, provided the course of study has been adapted thereto, there are insuperable barriers in the way. We recognize the fact that the High School exists to meet local wants, and does its work best when it most fully meets such wants. It has been held that, for the pupil to fit himself for college, it is necessary to engage in special lines of work such as are not found in most of our High Schools, and which could not well be provided without sacrificing local interests. But for the last three or four years the Faculty of Albion College have been studying this question in the light of all the information they could obtain, with a careful scrutiny of the principles involved, and have reached the conclusion that ***the courses of study best adapted to the purposes of the High School, may, and ought to be, accepted in preparation for college.*** We shall therefore try the experiment, which we believe will be successful of taking the student at the point up to which the best schools have educated him, ***giving him credit for all his work.*** This will practically throw college doors open to a large number of young persons, who on the old system would be deprived of the advantages provided in the higher institutions of learning. By this plan we shall ***not admit at any lower point of scholarship,*** but shall make the lines of study in preparation more flexible, holding that it is training and culture that are needed, which can be secured through superiority and adequate range of work, rather than by adherence to the old method of following always a special line of studies. We are convinced that a large number of schools of twelve grades—in the quality and extent of work done—may be trusted to prepare for the Freshman year in college; and that many of the schools of eleven grades may be relied upon to fit the pupil for the Fourth or highest Preparatory year. We therefore make the following

Announcement.

1. Under conditions hereinafter mentioned, we shall accept, without examination of students, the work of the best High

Schools of twelve grades, as preparation for College. We shall accept the completed work of their English Course as sufficient to admit the student into the Freshman Class in our Letters Course, on graduation from which he will receive the degree of Bachelor of Letters. If the course he has pursued is more strictly Scientific, he will, in the same way, be admitted into our Scientific Course, for which the degree on graduation is Bachelor of Science. If the course studied was largely made up of Latin, or Latin and Greek, he will, in like manner, be admitted into College in the Latin Scientific, or Classical Course, which will prepare him, in the former course, for the degree of Bachelor of Philosophy, and in the latter for Bachelor of Arts. Under the same conditions we shall admit into our ***Fourth Preparatory year*** from schools of eleven grades which are known to be doing satisfactory work.

2. The regulations contained in the preceding paragraph apply to ***all schools which***

(a) Have been ***visited by the Faculty of the University of Michigan*** and approved by them; or

(b) Have been ***visited by us and approved;*** or

(c) Have, by some other ***satisfactory method, supplied us with the evidence*** that, in extent, quality and completeness of work, the pupil has gained the scholarship and culture required to enter our classes. If the school has received formal approval according to (a) or (b) of this paragraph, we shall admit students directly on their diplomas and certificates. But if the school is not included in one of these classes, and it is desired to enter into relations with Albion College, the course or courses of study must be transmitted to us with such statements in regard to the work done as are considered important. This will be preliminary to an adjustment of relations. We will, at an early day, give information as to our judgment of the curriculum followed in such school.

3. To be ***admitted into the College without examination,*** the student, if coming from a school included in one of the classes of 2, (a) or (b), will ***present his diploma or certificate,*** together

with a letter from the Superintendent or Principal of the School informing us that his work has been thoroughly done, that his habits are studious, and that he possesses capacity for genuine scholarship. On the strength of this he will be ***immediately classified.*** If he comes from a school embraced in class 2 (c), he must present his diploma or school certificate, with a letter from the Superintendent or Principal of the school certifying to the earnestness and success of his work. He will then be ***classified provisionally*** according to the tenor of these documents, which classification will be ***made permanent after a few weeks' successful study in the institution.***

MEMBERSHIP IN THE INSTITUTION.

Admission.—All candidates for admission will first call at the President's Room, No. 3, Chapel Building. They must present satisfactory testimonials of good character. If they come from other institutions they must bring a certificate of honorable dismissal. Before reporting for recitations the student must procure a Term Ticket from the Secretary of the Board of Trustees, showing that the term bills have been paid. ***The Faculty are not at liberty to give intruction previous to the presentation of such ticket.***

Regular ***examinations*** for admission are held at the beginning of the Fall Term, the day preceding the enrollment; at the opening of the Winter Term and the Spring term, on enrollment day. These examinations begin at 9 a. m. After examination the applicant will again report to the President.

Persons will be admitted only on examination, except the following: (1) Persons graduating from schools which are recognized by the University of Michigan as preparing for college. (2) Persons graduating from schools *approved* by action

of the Faculty of Albion College as satisfactorily preparing for college, or for some point in our Preparatory course. (3) Persons bringing satisfactory certificates from schools which, though no formal action has been taken to put them in the class of approved schools, are yet known to be doing good work. On these certificates credit will be given, provided the student is earnest and successful in his studies here. We advise all students from graded schools to bring certificates of studies pursued and standing in same, and, if there is satisfactory evidence of thorough scholarship, credit will be given.

Enrollment.—The opening day of each term is Enrollment Day. As a special list of students is prepared for each term, all students must report for enrollment on the first day of each term. For new students this is the act by which they become members of the Institution. The tickets issued contain a list of the studies to be pursued, and also a statement of dues. All individuals intending to enter any of the departments of the College should report on the first day if possible. If this cannot be done, they will be received at a later date, if qualified to enter the classes. Persons who are already students are also *required* to take out their term tickets on Enrollment day, so as to be able, on the following day, to prosecute their work with the regular classes. The closing of a term does not terminate the student's connection with the institution; *and unless he graduates or is excused by the President he must be present on the first day of the succeeding term.* Absence on that day is as much a violation of the rules and order of the school, as though it occurred in the middle of the term.

Passing.—The passing of students in their studies will depend on the work done on *each day* of the term, with special tests applied at regular and irregular times. The daily work must be satisfactory and the attendance uniform to entitle the student to the record of passing on the same.

Students who fail to pass at the close of the term must pre-

sent themselves for examination at the opening of the next term.

Absence.—Students who are not in their places at the opening of the term must, if minors, present valid written excuses from their parents or guardians; and if not minors must give satisfactory excuse for such delay.

COLLEGE REGULATIONS.

Only such requirements of the college as relate to good order and wholesome discipline are here presented. Indeed the great body of college laws must be unwritten. They need not and cannot be put on the printed page. The government of the Institution is not carried forward by formulated rules of conduct; these are not needed to secure correct deportment any more than in a well regulated family. The following are given for information on points which have no special bearing on questions of morality. They relate to necessary conditions of successful work:

1 Persons coming to Albion for the purpose of entering any department of the College are subject to its government ***from the time of their arrival;*** and whenever a student has entered College he is under its jurisdiction until his connection is formally closed by graduation or otherwise.

2. Students who are ***not in their places*** at the opening of the term, if minors, must present written excuse from their parents or guardians for their delay; and if not minors, must give a satisfactory excuse for such delay.

3. ***Uninterrupted attendance*** upon college duties during term time is required. Under ordinary circumstances visiting friends or home is discouraged.

4. ***Calls on students,*** whether by students or other persons, must not be made at such hours, or for so long a time, as to *interfere with college duties.*

5. ***Young ladies*** are allowed to receive calls from gentlemen only to a *limited extent* and in *public rooms* occupied by the family there residing. All calls must be made during the *early part of the evening*, and in no case should continue after 9.00 p. m.

6 ***Young ladies*** are not permitted to absent themselves from their rooms in the evening except on special permission granted by the President.

7. ***All students*** are expected to devote to study the hours designated for that purpose, and at their own rooms. Young men who employ the evening for *other purposes than study* violate the order and regulations of the Institution, and render themselves liable to discipline.

8. ***Young ladies*** may not attend lectures, concerts, or any public or private entertainments, or absent themselves from their rooms in the evening, except on special permission granted by the President.

9. ***No student*** is permitted to leave town without the President's permission.

10. ***Students are not allowed*** to board or room at any place the Faculty disapprove, or any longer at a place than they approve, ***nor to change*** their place of boarding or rooming during the term without the consent of the President.

11. ***Young ladies and gentlemen,*** unless they are brothers and sisters, will not be allowed to occupy rooms in the same house.

12. ***No student*** is allowed during term time to engage in teaching, or to recite in other than the classes of the Institution, except by permission of the Faculty.

13. ***No student*** can drop any study without the consent of the President and Instructor.

14. ***All unexcused delinquencies*** are registered. Students may be dismissed from college for absence from their classes or for other delinquencies. They may indeed be suspended

or dismissed from the Institution whenever, in the judgment of the Faculty, the interests of the school require it. A single case of willful neglect of duty is sufficient reason for discipline, as it is an infraction of the order and requirements of the Institution.

15. ***All delinquencies,*** such as tardiness, deficiency, offenses against good order in the recitation rooms, are dealt with by the Professors of the Departments. Flagrant cases are reported to the President or Faculty.

16. Before their delivery in public ***all literary exercises*** of students must be submitted to the Professor of Rhetoric or some other member of the Faculty.

17. ***No person*** may be invited by the students to deliver an address in connection with the Institution except by permission of the President.

18. ***Students*** who at the close of a term do not expect or desire to remain the following term *must apply for leave of absence or honorable dismission* from the Institution. Unless dismissed or excused they are subject to the regulations and government of the College. *Unexcused absence works forfeiture of privileges* heretofore gained by enrollment or matriculation.

19. Entering the Institution is a pledge on the part of the student faithfully and conscientiously to obey all the rules and regulations.

SPECIAL PRIVILEGES.

Religious.—On each school day at 9 a m., religious services are held in the College Chapel, which all the students are required to attend.

On Sunday morning they are required to attend public worship at such church as they or their parents or guardians may

select, and each student is expected to be uniform in his attendance at the church of his choice.

Every student also is required to attend the Sunday afternoon lecture given by the President or other persons secured by him. The lectures are upon some moral or religious theme. Attendance on the following is optional. On Thursday evening is held the general weekly prayer-meeting which, though a voluntary service, is attended by a majority of students. On Tuesday evening there is a church class composed of students, and at present is led by Professor S. D. Barr. At 9 a. m. on Sabbath there are meetings for the study of the bible. In the afternoon there are students' gospel meetings.

Albion College is not a theological school; it is not its office to impart instruction distinctively on theological and ecclesiastical subjects. But believing in morality we must believe in religion. No institution of learning will have a healthy moral atmosphere which is not pervaded by a christian spirit. To guard young men from the vices so common in every community there must be a distinct religious sentiment and a positive spiritual atmosphere from which immorality is shut out, and which serves as an inspiration to pure thoughts and a correct life. But while Albion College does not teach theology, it does teach God as the Creator of all things, as a personal providence to every human being, as the author of the Bible, and who in Christ the Redeemer of the world, is ready to save every one who in penitence and faith will come unto him for everlasting life. While the school is not sectarian, and does not interfere with the denominational preferences of any student, and while it does not aim to make educated ministers any more than educated lawyers or physicians or business men, it does hold that God has rights in every lecture-room, that he must not be shut out from any department of instruction, and that truth can have no foundation only as it rests finally on the being and creative power of God. The authorities of the college hold that character is more than scholarship, and to be perfect the character must be christian. The aim is to supply the world with edu-

cated christian men and women for all the professions, for all departments of legitimate business, and for all proper relations in life.

Societies.—There are three Literary societies connected with the Institution: The *Erosophian Society, the Eclectic and Athenaedes Society*, and the *Philozetian Society*. The two former are college societies, the latter is connected with the preparatory school. Students in preparatory classes may join the *Philozetian Society* and remain in the same until reaching the Freshman Year. They are not at liberty to become members of either of the regular college societies before they complete the studies of the first three preparatory years.

The *Missionary Society* is organized for the promotion of the missionary spirit.

There are *two Christian Associations*—the Y. M. C. A. and the Y. W. C. A.

A *Reading Circle* has been organized in connection with the Conservatory of Music.

The *Ladies' Library Association* carries forward its work by the employment of eminent lecturers, the profits accruing being devoted to the purchase of books for the library. It has this year paid $300 into the library fund.

A college paper called the *Pleiad* is published by a society or stock company organized for that purpose.

The Literary Societies have fitted up *elegant apartments* in which to hold their weekly meetings.

No literary or other society can exist in connection with the Institution unless by permission granted after the Constitution and By-Laws of the same shall have been submitted to the Faculty for examination, and shall have received their approval. Whenever the workings of any society shall be deemed prejudicial to the interests of the Institution, such society will be dissolved.

The ***times and places*** of the meetings of societies will be subject to regulation by the Faculty; and all meetings, whether

of regular societies, or of any other body of students, shall be open for the attendance of any member of the Faculty or of the Board of Trustees.

No society in the College may ***invite any lecturer to address them*** in public until the name of the proposed lecturer shall have been laid before the President, and he shall have given permission to extend the invitation.

DEGREES.

College.—The degree of Bachelor of Arts is conferred upon all who complete the Classical Course.

The degree of Bachelor of Philosophy is conferred upon all who complete the Latin Scientific Course.

The degree of Bachelor of Science is conferred upon all who complete the Scientific Course.

The degree of Bachelor of Letters is conferred upon all who complete the Letters Course.

None of the above degrees will be conferred except upon satisfactory examination, and payment of the regular fee of five dollars; and *the name of no student will be presented by the Faculty to the Board of Trustees for a degree till he has submitted to the Faculty the receipt of the Secretary for the payment of all dues, including the fee for diploma.*

No one will be admitted as a candidate for any of the above degrees later than the first term of the Senior year.

The degree of A. M., Ph. M., or M. S., unlike that of LL. D. or D. D., is, in theory, not honorary, but a voucher for the recipient's actual and ascertained progress in some special line of post-graduate work; while in practice these degrees have been almost universally conferred by American colleges without any reference to the preparation or fitness of the candidate. During

the last decade, however, there has been a general movement toward the correction of this evil; in harmony with which movement the Board, in 1879, passed a series of resolutions which furnish the basis of the following regulations:

1. Graduates of ***any year previous to 1880***, of three or more years' standing, who have been engaged for three years in literary or scientific pursuits, will be recommended for the Master's degree, upon written application and the payment of the regular fee of five dollars.

2. Any person graduating ***subsequently to the year 1879***, may obtain the Master's degree by either of two methods, viz.: (1) one year of exclusive study in Albion, or (2) a three years' course of reading pursued in connection with other occupations.

3. A candidate electing either of these methods will be required, (1) ***at the beginning of his course*** to elect, with the advice and approval of the Faculty, one principal and two subordinate lines of study; (2) ***at least one month*** before recommendation for the degree, to pass a satisfactory examination upon such work in each of the three lines as may be specified by the Faculty; and (3,) ***at least two months*** before recommendation for the degree to present a thesis upon some topic approved by the Faculty in his principal line of work.

4. In the case of one-year candidates, residence in any college town or other place furnishing facilities for special study, such as libraries, museums, etc., will be accepted in lieu of actual residence in Albion; provided always, that all other conditions herein stated are rigidly complied with.

5. ***In no case*** will the candidate be recommended for the degree before he shall have paid in the regular fee of five dollars.*

The plan followed by the student will embrace ***one principal***

*NOTE—Any person desiring to become a candidate for either of these degrees will at once communicate with the Secretary of the Faculty, stating the lines he would prefer to work in, his present occupation, his facilities in the matter of libraries, etc., etc., when the Faculty will determine, as nearly as possible in accordance with the applicant's inclinations, the studies to be pursued, prescribe the books to be used, etc., etc. As the work will be entirely elective, no specific course can be laid down; but in general it may be said that the candidate will be expected to work in the subordinate lines as a general student; in the principal line as a specialist.

line of study, and ***two subordinate lines.*** This work can be done in any of the departments represented in college courses, or ordinary post-graduate lines of study, embracing also the leading questions of the day.

A statement of the conditions on which the degrees of Bachelor of Music and Bachelor of Painting are conferred will be found in connection with the courses of study in the Conservatory of Music and the School of Painting.

GENERAL INFORMATION.

College of Liberal Arts.—Candidates ***for admission*** to the Freshman Class must be at least sixteen years old, must pass examination in the Primary English branches, and in all the studies of the Preparatory Course, or studies equivalent thereto, as taught in the High Schools, unless admitted on diploma or certificate from High Schools under conditions elsewhere stated.

Candidates for ***advanced standing*** must, in addition to the foregoing, pass examination on advanced studies for which credit is sought, unless coming from other colleges whose work is accepted by us. Persons not candidates for a degree will be admitted to the regular classes, but will be charged the matriculation fee, when their scholarship would entitle them to admission into the Freshman Class.

Preparatory School.—Candidates for admission must be at least twelve years of age, and have a knowledge of the primary branches, including Descriptive Geography, Mental Arithmetic, Written Arithmetic through fractions, and some knowledge of English Grammar.

The object of this school is to provide young people who desire to fit themselves for college with the most complete advantages to make such preparation. It is not an academic department for general study, but is conducted purely in the interest of those who intend to pursue studies required for admission into college. [For academic work a special department has been arranged, as is announced elsewhere in the Year-Book.] One of the chief features of the curriculum of the Preparatory School is that the modern languages are introduced at the ***very beginning of the course,*** in order that the student may be prepared to study the ancient languages, when reached, more successfully than it is possible otherwise to do. The entire work of the institution is based upon the principle that a considerable portion of the *present* in language, in history, in science, in philosophy, should be taught before the past, in order that the student may have the problem of knowledge clearly before him, so that he can intelligently study the development of truth.

Academic Department.—No scholarship is symmetrical and complete without the study of the languages. Many, however, feel that they cannot take the time to pursue a full course. For this class we propose to provide the most ample opportunities to acquire a knowledge of such branches as they desire to master without taking up the languages. Therefore, an Academic Department—distinct from the preparatory and the college, has been organized. All branches taught in the Preparatory School and the College, except the languages, are taught in this Department. They will be found in the general courses of study in another part of the Year-Book.

Students are admitted into this department whenever they are prepared to take up and successfully carry forward the work. They must not be less than twelve years of age, and must have such knowledge of arithmetic and English grammar as will enable them to do good work in these classes.

The expenses are the same as in the Preparatory School.

Conservatory of Music.—It is the chief aim of the Conservatory to teach both the Science and the Art of Music in such a thorough and systematic way that they shall be, *what they so often are not, of available* and *practical* use to the student after having completed a course. Great care is taken to secure a correct technique; also a proper position of the person, hand and arm while the pupil is seated at the instrument.

Careful attention is given to the developement of the muscles of the hand and fingers, and in acquiring flexibility of fingers, wrist, etc. In short, the methods which have for so many years made the German Conservatories famous, are closely adhered to. Much time is given to the cultivation of a taste for the best forms of classic music.

The Course in Music consists of ***Seven Grades,*** each based upon such studies and selected pieces as form the standard of the various degrees of profficiency at the best institutions of a similar kind. Upon entering, each student will be examined and graded accordingly, while promotion is not limited by time, but depends entirely upon the progress of the student. A student of ability can, with proper application, almost finish the first three grades in one year. In most cases four years will be sufficient to complete the course. It is advisable that students should begin music with the determination of completing, at least a certain part of the course, if not the whole.

Instruction is given, both in ***private lessons and by "class teaching,"*** according to the preference of the student. The classes consist of either two or three pupils.

The courses have been arranged so as to secure the greatest thoroughness and proficiency in music as a science and an art. Students are admitted for a single term, but all will see the advantage of taking a full course of instruction, including, not only the ordinary lessons given on the piano, organ or violin, but also harmony and counterpoint. The literary studies of the course have been selected with reference both to sound and varied scholarship and the accomplishments of learning.

Aside from the regular lessons given at the instrument, there is a ***weekly drill of the entire Conservatory*** in the catechism of music. At these gatherings instruction is given which there is no time to impart in connection with individual or class lessons. There are also weekly rehearsals to drill and fit for public playing. The student thus gains confidence, his faults are corrected, and he is prepared to use to the best advantage the knowledge acquired.

Instructors of superior ability are employed to teach in connection with any of the instruments used for orchestral or band music. It is our aim to make the College a center of interest and culture for the music-loving public, providing the best instruction for all who aspire to proficiency in any line of musical excellence.

As a part of the educational facilities of the Conservatory, there is also maintained, in efficient organization, ***a complete Orchestra.*** In this orchestra there are at present nearly fifty performers.

Although orchestral music is generally transferred to the piano, yet the full effects of the Orchesta cannot be given by that instrument. Orchestral music is written in a special form and character, both to embody the idea of the composer, and also with reference to the instruments that are to express and interpret that idea. These instruments have a tone-color peculiarly their own, which is lost by transference of the music to the piano. The ***Orchestra thus opens to students of music an entirely new field of instruction*** and culture which is of great value. It is, however, only the more advanced scholars who can advantageously avail themselves of its benefits, and only these, therefore, are allowed to become members.

During the year there are ***several Public Recitals*** which are especially intended to improve the taste for, and promote the appreciation of, the best masters. Haydn, Mozart, Beethoven, Bach, Mendelssohn and Schumann, furnish the broadest subjects to express the depths and grandeur of musical conception. The students are required to take an active part in these

exercises. Also Recitals are given at the College by some of the most eminent musicians of Boston and other eastern cities, so that the student shall not fail to come into relation with the highest power of the art of music.

For all students desiring to study the principles of Vocal Music, ***rudimental class*** is organized, continuing through the year—the tuition for such instruction being merely nominal—to provide music for the most efficient movement of the class. After completing the study of the rudiments the students are admitted into the general chorus in which there is no tuition. The work of the chorus consists of the rendition of the higher forms of vocal music.

Voice culture is made a specialty. By referring to the list of students it will be seen that this department is very rapidly growing. Very many students who enter upon the study of the principles of vocal music or join the chorus class, come to appreciate the desirableness of special voice training. All who desire to fit themselves for singing in church choirs, for teachers of vocal music, or for professional singing in any capacity, can here obtain the instruction and culture desired.

The music students are organized into a ***Theory Class,*** which meets each week for special instruction.

Students intending to teach music receive thorough instruction in the ***art of teaching,*** a special class being organized for that purpose.

Persons are admitted into the ***Musical Course directly, on application,*** and are classified according to their proficiency in music.

The foregoing statements, so far as they relate to instrumental music, refer specially to study in connection with the piano, or piano and organ. We are, however, giving much attention to ***instruction on the violin.*** From no instrument can more charming music be drawn, nor music which, if properly used, is more refining.

School of Painting.—The aim of this Department is to conduct the pupil with thoroughness from the simplest rudiments

up to a knowledge of the higher branches of art, giving as far as possible a perfect understanding of all the work entered upon. The development of taste and talents in the fine arts is now regarded as essential to culture. It will be seen by reference to the Course of Study in painting, (printed elsewhere in this volume,) that the student receives instruction in the elementary courses of drawing. These can be taken in the class with others who are in this and the Literary Departments. Then, special and individual attention is given to the study of ***object drawing, linear and aerial perspective; landscape, figure, flower and fruit painting, in oil, water colors and pastel; painting and crayoning portraits, pen-drawing and India ink wash drawing for reproduction, decorative painting and design.***

The Art Department connected with the college adds much to the needed practical side of education.

Prof. Thompson of the Worcester Technical School tells us that, "A boy who spends two hours a week in drawing, and the rest of the time in working at the bench, learns his business faster, and becomes more skillful in it, than one who works all the time." Again, "It is calculated that the productive efficiency of every machine shop would be increased thirty-three per cent if every journeyman could read any common working drawing and work by it."

Mr. Ware, Professor of Architecture in the Boston Institute of Technology says, "Drawing is an invaluable element in general education. To the working man it is of the greatest practical use; it makes him a more intelligent and serviceable workman. If he attains to real skill in the use of his pencil, and develops the tastes and talents that cannot without the training be either discovered or made use of, he becomes a valuable person at once. Every branch of our manufactures is suffering from the want of just this intelligence and skill."

Says Professor Bail, of Yale College, "The whole nation is deploring the lack of good ornamental designers. We are becoming tired of sending so many millions to Europe for articles that we might produce cheaper at home if we had skilled de-

signers. This branch of industry affects articles for the homliest use."

But it is well known that art study, besides having a tangible value in its relations to manufactures, is designed to promote improvement in taste. The highest and best purpose of any attainment is that which ministers to the intellectual and spiritual wants of man; few channels being more permanent than the perennial delight afforded by good art.

Painting can not be successfully followed by one ignorant of such truths in the sciences as bear directly upon the art. Anatomy, Natural Philosophy, Botany, Chemistry, etc., cannot be taught in the private studios as effectually as by departments having these studies in charge. These studies can be pursued here by students of painting without interfering with their hours for lessons.

Landscape study from nature is much more easily and agreeably accomplished here in Albion than in the large cities, as the college buildings are located near the open country and many beautiful scenes are found along the Kalamazoo river, not a quarter of a mile from the studio. Especial attention is given to this branch during the spring and fall terms.

The new letters course now offers an attraction to students who might wish to take music and painting in connection with such a course. A certain number of hours devoted to painting may be credited in this course if the student desires.

Aside from the general course of instruction provision is made for the study of painting as a ***decorative art.***

The charges for instruction—which are moderate—will be found on another page.

Department of Oratory.—The Department of Oratory was instituted at the opening of the present college year by the appointment of Professor Mark B. Beal to give instruction in the "art of expression." The College has from the first felt the need of such work in connection with its courses of study. No greater perversion of meaning exists than that which calls

Elocution simply an accomplishment. There is no branch of education which touches practical life more constantly and effectively. The fact that speech is common to all races of men only magnifies its significance. Colleges have not given that attention to the cultivation of the powers of expression, including speech and action, as is necessary for the fullest declaration of thought and emotion. Dr. Holland says, "Thousands of young men and women are graduating from our institutions expecting to become professional speakers who do not stop to think that to become a successful public speaker requires as much special preparation as for any given department of professional life." Carlyle in a characteristic speech makes this assertion, 'All that a university, or final highest school, can do for us is still but what the first began doing—teach us to read.' Cicero—somewhat audaciously—asserts, in substance, that manner is of more importance than matter. Bishop Butler speaking of the Elder Pitt's celebrated speech on the 'Stamp Act' said, 'There is nothing which an ordinary man might not have said; it was the *manner*, and the manner *only* which produced the effect.' "

Holding that greatness consists of clear intellectual apprehension and power of thought, it is yet evident that mental energy loses half its power when hidden behind imperfect and faulty modes of expression.

The Department of Oratory has opened in the college with very gratifying evidences of favor. Its work is elective, and has been chosen by a large percentage of students in the literary courses. It is hoped that the coming year a ***Graduating course in Oratory*** will be provided. The opportunity for supplementing the Department work in Elocution proper with the English Classics, Psychology and Voice Culture, will give a breadth and scope for the course of instruction which schools distinctively elocutionary do not offer. It is proper to mention here that an opportunity of appearing in weekly public recitals in connection with the exercises of the Conservatory of Music is

given those whose work is of a superior order. Each term closes with a special recital.

Method of Instruction.—This is similar to that employed by the late Lewis B. Monroe, Dean of the Boston School of Oratory, with such adaptations of the principles of expression formulated by Francois Delsarte as are considered most essential and practical.

A Complete Course in Oratory embraces vocal and physical gymnastics, insuring culture and flexibility of voice and bodily action; ***sight reading,*** for securing mental promptness and accuracy; expression, forensic, dramatic, pantomimic.

The ***growing Necessity*** for skillful teachers of expression in the graded schools, not to speak of the acquirement of that which constitutes a stepping stone to eminence in professional life, and a graceful introduction into the first literary circles argue strongly in favor of a careful study of the "Art of Expression."

Commercial Department.—The object of this department is two fold.

1. It gives to all who may wish to engage in business pursuits an opportunity to fit themselves in the most practical manner possible.

2. It affords an opportunity to all students at their option to take commercial studies as a part of a literary course, and receive credit for the same.

The benefits of a business education are becoming more apparent each year. The rapid increase in our population is causing a corresponding growth in our commercial transactions. This increased activity in business circles must necessarily open the way to many a young man for a successful entrance into the active duties of life. The first question which every thoughtful young person will ask is, How may I best fit myself for succeess in life? The answer, educate yourself.

The objection to Business Colleges is oftimes raised that they are merely theoretical, that they are of no practical value; that

the time spent in taking a course in book keeping could much more profitably be spent in some office where a remuneration for one's work could be obtained and the knowledge of book keeping also acquired.

This objection was much more true ten years ago than now, and yet not all Business Colleges have kept pace with the times. The aim is something practical, but the majority have not passed the theoretical period. In Albion Business College we have a thoroughly practical school. We use no text book. The student becomes a business man the moment he enters school, and is thrown entirely upon his own resources. What he learns by experience he will never forget. He sees the transaction as it occurs, and associates the entry with the transaction. Every entry to be found in a student's book has a counterpart in some other student's book. There are no fictitious transactions. The student handles the goods which he buys and sells, giving and receiving checks, notes, drafts, and all the various forms of commercial paper. By this method the student is taught self-reliance. There are no two sets of books in the school that are alike and hence there can be no opportunity for copying results. Each student must think and act for himself. In our school only the shortest methods are used. We follow no one style of book-keeping but take advantage of the good points of all. Only real values bring out and test the ability and sagacity of the person concerned. It is a misnomer to call an imaginary transaction practical. This miniature world of business, where students vie with each other in making the most desirable bargains and investments, to the end that the result of their labors may show a profit, accomplishes infinitely more in developing their powers and capabilities, teaching them to think and act for themselves, than is possible by any other plan.

Another reason why so many Business College graduates are not fitted for work is because of the short courses which so many colleges present. Two to four months is not time enough in which to learn a profession. Practice makes perfect, and it

requires a good deal of it at that. In the preparation of our course we have had in mind *not simply a trained book-keeper, but rather a trained business man.* The course is designed to cover a period of nine months.

Our Course of Study has been arranged with the aim of developing the business capacity of the student by a thorough course of training, while we impart a knowledge of the laws which govern the business world; a knowledge of penmanship, grammar, mathematics, and business forms; and thus by a broad and systematic training our students will become successful business men and worthy citizens of our great Republic.

Penmanship.—A plain and legible hand-writing every person should possess, and it is especially true of those who intend to enter upon a business life. Often the first question asked by those wishing to employ a young man is, "Is he a good writer?" After a good character the best recommendation for any young man is a good style of business writing. More than most anything else, it will open up a way for him in life. After the way is open he must look to his other resources as well, to enable him to keep it. The special object will be to secure to each student a rapid, plain and legible hand. Most of the instruction is personal, and enough class work is introduced to keep up the interest.

In our Ornamental Pemanship Department, instruction is given in Off-Hand Flourishing, German Text, Old English Letters, Pen Drawing, and all other branches of pen work. Special rates will be given to those who may wish to do work of this kind.

ENGLISH BRANCHES AND COMMERCIAL LAW.—Realizing that our course should be made as practical as possible, we have introduced those studies which, when pursued with book-keeping and penmanship, will enable a person to obtain a thorough knowledge of business. All our work in Arithmetic, Commercial Law, Grammar, Commercial Forms, and Correspondence, is done very thoroughly, and only those parts of each study are dwelt upon, which are of the most importance.

BOOK-KEEPING.—Our method of teaching book-keeping and business differs from that which is generally employed by Business Colleges. Our school is a completely organized Business Community, and business is carried on by our students in the same manner as by merchants in the business world. On entering the school the student is furnished with a cash capital of one thousand dollars, together with all the blanks that are necessary for the transaction of business. Aside from the set of books, the following business forms will be used during the Course: Notes, Drafts, Receipts, Checks, Bill Heads, Shipping Invoices, Freight and Shipping Receipts, Certificates of Deposit, Stock Certificates, Deposit Slips, Insurance Policies, Bills of Exchange, Account Sales, Statements, Deeds, Mortgages, Leases, Bills of Sale, and in fact every form ordinarily used in business. Our merchandise is represented by small cards, each of which has a given value, and is bought and sold at a discount proportionate to the supply and demand. The school is also supplied with College Currency. The capital with which the student has been furnished, he now deposits in one of the College Banks and takes a Pass Book. He next leases a place of Business and at once begins to job. He buys from the student merchants at the best discounts possible, and finds in the teachers customers for all the goods he may have to sell. He is shown how to properly fill out the various forms, make the different entries, correctly post the same, make out statements and close the Ledger. He goes through this process several times until he becomes familiar with it and is able to finish a set without help. He is now advanced to the Boot and Shoe business. From now on he buys from the Merchants' Emporium, at wholesale prices, and sells to jobbers. He is also compelled to do some jobbing in each set for the purpose of increasing the number of the transactions, and enabling him successfully to handle large numbers in trial balances. From the Shoe Business he advances through the different lines of trade, such as Dry Goods, Groceries, Flour and Feed, Produce and Provisions, Commission, Clothing, and General; in each of

which he finds some principle which is as yet new to him. After finishing his work as a retail merchant the student is ready for the offices, which are provided with sets of large books. These are the Transportation office, Merchants' Emporium and the Bank. Of the last two we have two each. Upon the completion of the prescribed course the student is given a final examination on all points covered, and if he has an average of 80 per cent. he is given a diploma.

SHORTHAND AND TYPE-WRITING.—During the past fifteen years a new profession has been born. It is that of the Amanuensis. Mainly through the invention of the type-writer has the art of stenography found a field of usefulness that was hardly thought of by its early supporters. The claims of "Takigrafy" to public favor may be stated as follows: (1.) Not only is it a correct representation of our language, but it may be easily adapted to any other language. (2.) Any person can learn it and it can be put to practical use in nearly every profession in life. (3.) It is far more easily learned and read than longhand. (4.) It saves to every person using it at least three hours out of every four, and eight-ninths of the labor used in writing longhand. (5.) It teaches the correct pronunciation of words. (6.) It furnishes a lucrative business to large numbers of its followers.

The system used by us is Lindsley's "Takigrafy," a system that has been before the public for a number of years, has been thoroughly tried and found worthy in all respects. A great many have tried to learn shorthand and failed because they have chosen complicated systems. We claim the following advantages for "Takigrafy": First, It is phonetic. Each character used represents a distinct sound, hence we have no complicated letters. Second, Position is not a principle of our system. The same character has the same meaning wherever found. The form of the letter determines it and not its position. Third, The sounds most often occurring are represented by those characters which are most easily made. In most cases the letters join easily to each other, forming a running and

rapid handwriting. Fourth, It is the most easily learned of any of the standard systems, because it is the most natural.

In addition to the instruction in Takigrafy our students have the use of Remington Typewriters, the best in the market to-day, and are drilled upon the principles of correspondence. An hour a day is also devoted to the improvement of their penmanship. The average time necessary for the completion of the course is four months. For further information concerning this department, or for our circulars, address, D. W. Springer, the Principal.

APPLIANCES FOR INSTRUCTION.

Museum.—The modern museum is not a mere collection of rare curiosities, but is rather considered as a valuable adjunct to the work of instruction. This service the Museum of Albion College performs. Its specimens are daily brought to the Laboratory and class-room for dissection and observation, the students thereby being able to study the fauna and flora of the distant portions of the earth.

Besides the mounted specimens displayed in the cases, the college keeps constantly on hand many hundreds of specimens of type forms preserved in alcohol, in order that when a given subject is reached every member of the class may be supplied ***with a study specimen.*** In this way the work of acquiring knowledge of a subject, such as Botany, Zoölogy or Mineralogy, does not consist in the mere acceptance on faith of the statements of the author, but it is the privilege of the student to challenge those statements by a practical appeal to the natural object.

Again, the Museum is for the purpose of entertaining and educating the general public. Many hundreds of people in

the course of the year visit these rooms and go away with much information which could be procured in no other way.

As heretofore we are under obligations to our friends for the interest they are taking in the building up of this part of the appliances of the college. Especial thanks are due to Mrs. Ella Hoag-Brockway, Mrs. G. W. Hoag, Oscar B. Warren, J. C. Eslow, and Mr. C. C, DeCamp of Durand, for additions to the collection.

Among the special features of the Museum may be mentioned the collection of coins and other historical relics. Cases are now provided for this collection, and it is to be hoped that soon we shall have a large amount of material to aid in the study of history. We are also exceedingly anxious to make complete collections in two directions, viz: Indian relics, and objects of interest used in the late war.

Laboratories.—The ***Chemical Laboratory*** contains tables for twenty-five students, fully furnished with re-agents and all apparatus required for the thorough demonstration of the facts and principles of the science.

The ***Biological Laboratory*** contains tables for forty students, thirteen compound microscopes, several hundred mounted objects, and all necessary appliances for preparing and mounting specimens in all departments of biological research.

These appliances are constantly increasing. They are regularly used in the class room, where they furnish experimental proof of the laws and theories discussed.

In connection with these laboratories, and easy of access by the students, is a ***chemical and biological working library of about five hundred volumes.*** These books are in constant use and furnish much collateral aid in subjects under investigation.

The Astronomical Observatory.—The Observatory stands on the campus, on high ground affording an uninterrupted view in all directions. The building, built in 1883, is of brick, two stories high, with a round tower which rises to three stories, and is surmounted by a dome.

On the lower floor are the lecture room of the department of Astronomy and Applied Mathematics, and the pier-rooms through which pass the brick supports for the fixed instruments. These are also utilized for containing the apparatus employed in the study of Physics. On the second floor are the Transit room, containing the Transit Circle, Clock and Chronograph, a computing room, a room for portable instruments, used also as a workshop for the manufacture of such apparatus as can be here constructed for the illustration of physical problems, and a room containing the Astronomical and Meteorological Library. Here are also kept the meteorological instruments, observations of which are taken three times a day and forwarded to the officers of the State Board of Health and the United States Signal Service. In the round tower is placed the Equatorial.

The instruments are of the best class, the chief among them being as follows:

1. A Transit Circle, by Fauth & Co., of four inches aperture, reading by two micrometer microscopes to single seconds. It is provided with micrometer in right ascension and declination.

2. A Siderial Clock, by Fauth & Co.

3. A Chronograph of latest style, by Fauth & Co., with Saegmueller's maintaining power.

4. The Equatorial, constructed and mounted by Alvan Clark & Sons, of eight inches clear aperture, and provided with circles, driving clock, filar micrometer and full outfit of eyepieces, both Huyghenian and Ramsden.

The above instruments are all in electrical connection, that all observations may be recorded by the Chronograph.

The Meteorological Instruments include a Standard Barometer, Maximum and Minimum Thermometers and Psychrometer by J. & H. J. Green, Rain and Snow Gauges, etc.

Excellent instruments are also provided for practical work in field surveying.

Though the instruments are of the best, it is a maxim here that none of them are too good for use, and students are en-

couraged to employ them in their studies to as great an extent as they may be able. The advanced class in Astronomy is required to become familiar with the astronomical instruments and their adjustments to such an extent that they make reliable observations and reduce them accurately. So far as possible, all work is based upon observations taken by the student who performs the reduction.

It is a noteworthy fact that the vast bulk of astronomical knowledge has been gained by the use of instruments far inferior to those upon these grounds. The Transit Circle, with a good brain behind it, is adequate for nearly every class of observations to which such instruments are applied, and the Equatorial, which is supplied with an objective of unusual perfection of figure, is of the same size as those by which Dr. Huggins made his remarkable studies in stellar spectra and in star motion in the line of sight; by which Neison and Beer and Mädler made their renowned studies upon the moon, whose surface is now far better known than that of our own earth, by which Schiaparelli made his wonderful discoveries of the duplicate canals (?) upon our companion planet Mars, etc., etc. It is true that this is an age of great telescopes, but the mechanical and optical diffieulties in the way of their use render it certain that the really useful instruments of the future, as of to-day, will be found among those of smaller aperture and consequent facility of management.

Library.—The number of books added to the library during the past year, ***aside from unbound volumes,*** is 853, making the whole number now in the library 6,853, aside from over 2,000 unbound volumes and pamphlets.

The nucleus of a ***Bibliographical Museum*** has been formed by placing in the Library a glass case for books specially notable on account of age, rareness, ownership, etc.

In the management of the Library great pains is taken to induce the students to use it as much as possible, since we hold that to train them in the use of books, the store-house from

which all alike must draw, is one of the most important functions of the College. With this object in view ample indexes are provided; books much in demand are placed within the reach of all; and new books are placed in a revolving case in the reading room, where their accessibility will tempt every one at least to look them over. The utilizing of new books is further secured by placing them in the hands of the teachers most interested, who frequently assign them to students to review before their classes, thus giving all an opportunity to learn the bibliography of the subject, and filling all with new zest for work in the several departments.

The usefulness of the various reports, collections, etc., in chemistry and biology, has been greatly increased by ***transferring them to the chemical lecture-room,*** which is now kept open during the day, and is being used as a study room by those most interested in these lines of study.

To facilitate such a use of the library, ***card indexes*** are prepared and placed in easy access to all students. First, ***a card index of authors,*** alphabetically arranged. In this the author's name is the leading word upon the card, and below it, or on successive cards, are placed the titles of all books in the library of which he is the author. The number of the book is placed upon the card opposite the title. The student, knowing the author's name, is thus guided to the desired book.

Another drawer contains ***a title index,*** or catalogue, of all the books in the library, on cards alphabetically arranged. In this the title of the book is the leading word upon the card, the author's name following. The advantage of cards, instead of a printed catalogue, is that it admits of continued accessions without destroying the alphabetical arrangement.

Then there is the ***subject index,*** in which the subject is the leading word upon the card, and all books treating upon that subject, even those in which it is only incidentally mentioned, are there referred to by name, number, and, if it is only a sketch or article in a book of which that subject is not the title, the page also. A student, desiring to investigate any subject, is

thus guided to all there is in books and pamphlets upon that subject in the library.

Another drawer contains the ***biographical index*** where the student is guided to the biography and biographical sketches of any one of whom he wishes to learn.

Still another drawer contains an index of current events, where the important events of the day, as they transpire, are recorded on cards. If the student wishes to know when Mr. Emerson died, or when President Garfield was shot, or when any other important event occurred, he goes to this index.

Besides these the library is supplied with ***Poole's index*** of periodicals, in which all the leading periodicals of the day are indexed, up to 1832, supplemented by the Co-operative Index of Periodicals, published quarterly. By these, students are guided to what they desire to find in the bound volumes of periodicals. Thus there are marked out paths to guide both the faculty and the students to such information as they wish to obtain in the library.

It is customary for members of the faculty to ***assign to the students certain topics for research,*** or subjects to obtain information upon, and thus their acquaintance with books is greatly extended, and they are disciplined in the practice of research. Tables are placed in different parts of the library where such students are permitted to sit and prosecute their investigations. The library is open during all school hours, and on Saturdays, and is free to all students.

Pastors' Library.—The college has inaugurated what may be designated a ***Methodist Pastors' Library,*** five hundred dollars having been received as a bequest from Peter M. Emery, the use of said money to be determined by Rev. Levi Master. Believing that the church would be most largely benefited by such disposition of the funds, Mr. Master has turned the same over to the Library of the College.

Reading Room.—The *reading room* is provided with a two-fold end in view: to furnish a wide range of general news-

paper and magazine reading, and to supply advantages for special educational work. It contains the leading religious and secular papers of the country, with some from foreign lands, including French, German, Latin and Greek. It is supplied with the principal magazines of this and other countries.

MAPS AND CHARTS.—Of apparatus for illustrating the work in Language, Literature and History, we have probably as large a collection as any school in the United States. ***Both the Latin and Greek*** departments are provided with full sets of classical maps. The Greek department has abundant materials for the illustration of Greek Archæology, and a rarely complete set of charts for exhibiting in detail the topography of ancient Athens. The head of this department is working out on an original plan a series of language charts which, when completed, will present to the eye a full outline of the leading facts of Greek Grammar.

The History department, where the "Layer Map" plan, (elsewhere described) has been introduced, has at its command about 180 maps, representing successive stages in territorial history. If every change which can be represented singly be counted, the total number of possible maps would aggregate about 800. In addition to the series formerly prepared, showing the development and break-up of the Roman Empire, the formation of the new nations up to 1843, A. D., the break-up of the Ottoman Empire, from 1699 to 1885, the development of Prussia to 1866. the growth and dissolution of the Napoleonic Empire, and the unification of Italy; we have this year prepared a set of "layer maps" for the United States, showing every territorial change in its history from 1763 to 1876,—changes the number of which falls but little short of 100. As new maps are being constantly added, we hope to be able in a few years to exhibit every important territorial transfer appearing in the course of history.

The advantages of the device we employ are apparent. It is superior to the series of maps, because (1) it changes with history; (2) a more definite concept of the changed territory is obtained when it can be taken off and handled as a piece of cloth; (3) the student can be set to work out the changes for himself,—to build up or take to pieces the map; and (4) it is less expensive, involving but one or two full-sized maps. It is superior to the black-board scheme, because (1) it is clearer; (2) it is more accurate; (3) it is easier to reproduce, and so not too difficult for the student and the overworked teacher; and (4) it preserves both the original condition of things and the changed order, each of which can be reproduced in turn, and thus the exact nature and extent of the change can be clearly and definitely seen.

Incidentally, the use of a soft-wood back has suggested several little devices which we find quite helpful. For battles we use a bright red spear-head of stiff cloth fastened with sealing wax to the head of a needle. These, being removable, are placed on the map just where events call for them; can be made large enough to show across any room without permanently disfiguring the map; do not crowd regions like the Netherlands, where many battles have been fought, till the confusion is hopeless; and, finally, furnish, in putting them on, a useful exercise for the student. Similarly, we use a yellow star on a black circle, for treaties of peace, and lines of colored braid to follow expeditions, such as Alexander's, or the crusades. Doubtless other expedients of the same nature will suggest themselves.

Conservatory of Music.—The Conservatory of Music is supplied with all the instruments required for successful work. There are in the institution ***eleven pianos,*** eight of which are used for instruction purposes. One of these is kept in the chapel for use in concerts and on other occasions in which a piano is needed. This is an instrument of more than ordinary power. Each of the three literary societies has a valuable

piano, which helps to make music an interesting part of the weekly exercises. Students in the Conservatory are able, to a large extent, to practice on college instruments. Aside from these the institution is able to supply students to an almost unlimited extent, with the use of pianos at private residences in immediate proximity to the college buildings.

The institution possesses ***two organs***, one of these with all the appointments of a two-manual pipe organ.

The college will derive much benefit from the large pipe organ just placed in the new Methodist church.

The department possesses a Technicon for use of piano students in disciplining the muscles of the hand.

The Orchestra, composed of about ***fifty players,*** is supplied with all the variety of instruments employed for the production of orchestral music.

The Conservatory has a ***valuable musical library***, which is being enlarged as desirable publications make their appearance. It is also in receipt of the best musical papers and journals.

School of Painting.—This school occupies a suite of rooms in the North College building, both as working rooms and for art gallery. The gallery contains a large number of studies covering a great variety of subjects. There are also many very ***fine imported studies***—copies from celebrated painters—which represent the various schools of art. These afford the student a fine opportunity to study and compare the various methods of conducting art work. The department keeps on hand a large supply of easels of uniform pattern, with material, stands, etc., for the use of students. A ***complete set of models*** for drawing, consisting of cubes, cones, etc., are provided for use; also models of different parts of the human figure. The art room is supplied with a somewhat extensive ***collection of heads and busts*** of distingnished men of the past.

Complete provision has been recently made for study of ***Decorative Art.***

COURSES OF STUDY.

PREPARATORY SCHOOL.

FIRST YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
Arithmetic.....5	Arithmetic.....5	Arithmetic.....5	Arithmetic 5
English Grammar 5	English Grammar 5	English Grammar 5	English Grammar..5
French 5	French 5	French 5	* French. 5
Arithmetic..... ..5	Arithmetic.....5	Arithmetic.....5	Arithmetic 5
English Grammar 5	English Grammar 5	English Grammar 5	English Grammar..5
French 5	French 5	French 5	* French. 5
Arithmetic.....5	Arithmetic.....5	Arithmetic.....5	Arithmetic 5
English Analysis	English Analysis	English Analysis	English Analysis
and Composition..5	and Composition..5	and Composition..5	and Composition...5
French 5	French 5	French 5	* French 6

SECOND YEAR.

Rhetoric.. 5	Rhetoric.....5	Rhetoric.....5	Rhetoric.....5
Algebra..... 5	Algebra 5	Algebra.. 5	Algebra 5
German.. 5	German.....5	German.....5	* German 5
Civil Government 5	Civil Government 5	Civil Government 5	Civil Government..5
Algebra 5	Algebra 5	Algebra.. 5	Algebra 5
German.....5	German.....5	German.....5	* German 5
English History...5	English History...5	English History....5	English History....5
Algebra.....5	Algebra..... ...5	Algebra 5	Algebra 5
German.....5	German.... 5	German.....5	* German 5

THIRD YEAR.

Latin 5	Latin 5	Latin 5	Physic'lGeography 5
Physic'lGeography5	Physic'lGeography5	Physic'lGeography5	Modern History....3
Modern History.. .3	Modern History...3	Modern History...3	Physics.....3
Physics..... 3	Physics.....3	Physics. 3	* Elective 4
Latin 5	Latin 5	Latin 5	Map Drawing.....2
German.....3	German 3	German 3	Americ'nLiter't're. 3
Modern History ...3	Modern History ...3	Modern History ...3	* German.....3
Physics 4	Physics 4	Physics..... 4	Modern History 3
			Physics 4
Latin 5	Latin.....5	Latin 5	English Literature. 3
Botany.....4	Botany 4	Botany 4	Botany.....4
Medieval History. 3	Medieval History..3	Medieval History..3	Medieval History...3
Physics 3	Physics..... 3	Physics..... .3	Physics.....3
			* Elective.....2

FOURTH YEAR.

Latin 4	Latin 4	Latin(4) or Greek. 5	English Literature 4
Greek.. 5	English Literature 4	English Literature 4	Geometry 4
Geometry.....4	Geometry 4	Geometry.....5	Roman History 3
Roman History....3	Roman History....3	Roman History ...3	* Elective.....5
Latin 4	Latin 4	Latin(4) or Greek..5	Mechanical Dr'w'g 4
Greek.....5	Mechanical Dr'w'g 4	Mechanical Dr'w,g 4	Geometry 2
Geometry.....2	Geometry.....2	Geometry 2	Physiology. 5
Physiology 5	Physiology 5	Physiology 5	* Elective.....5
Latin 5	Latin 5	Latin or Greek 5	* German 4
Greek 5	German.....4	German.....4	Geometry 3
Geometry.....3	Geometry.....3	Geometry..... 3	Ancient History ..3
Ancient History ..3	Ancient History...3	Ancient History...3	* Elective.....5

COLLEGE.

FRESHMAN YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
Latin 4	Latin 4	Modern English History 4	Advanced English Grammar 5
Greek.....5	Algebra 5	Algebra.....5	Astronomy..... 3
Astronomy 3	Astronomy 3	Astronomy 3	* Elective.....7
French 3	French 3	French 3	
Latin 3	Latin 3	Microscopy.....3	Astronomy... 3
Greek.....4	American Literature 3	American Literature.....3	Geometry 4
Astronomy 2	Astronomy 2	Astronomy.....2	* Elective.... 8
German..... 2	Geometry..... 4	Geometry 4	
Geometry.....4	German.....3	German.....4	
Latin.....5	Latin 5	Botany.....3	Zoology 4
Greek 4	Geometry.... 4	Geometry.....4	* Elective.....11
Zoology.....4	Zoology 4	Zoology.....4	
German.....3	German.. 3	German.....3	

SOPHOMORE YEAR.

Latin 3	Latin 3	Biology..... ... 3	* Elective. 15
Greek 5	Mod. Cont. History 3	Mod. Cont. History 3	
Trigonometry 5	Trigonometry 5	Trigonometry 5	
Elective 2	Elective 4	Elective 4	
Latin 5	Latin 5	Physics 3	History of Civilization 3
Greek 4	General Geometry 5	General Geometry 5	* Elective.....12
History of Civilization.....3	History of Civilization or Physics 3	History of Civilization.....3	
Elective 3	Elective 2	Elective 4	
Latin 3	Latin 3	Physics 3	History of Civilization 2
Greek.....4	Calculus.....5	Calculus.....5	* Elective.....13
History of Civilization.....3	History of Civilization or Physics 3	History of Civilization.....3	
Elective 5	Elective 4	Elective 4	

*** It has been decided to make the Letters Course more flexible than heretofore in order to provide a course in which the student may more perfectly adapt the work to his peculiar taste and temperament. The required work in English, Mathematics, Science, and History is indicated in the table. In addition the candidate for this degree must take the courses in Psychology and General Chemistry; also three years of Language, of which at least one year must be French or German. Of the Electives about seventy hours must be taken from the Literary Department. The ninety hours remaining may all be elected from the Literary Department, or in part from the Commercial Department with a maximum limit of forty hours, or from the Art Department with a maximum limit of forty-five hours, or from the Conservatory of Music with a maximum limit of sixty hours, or from Elocution with a maximum limit of eighteen hours, or from any combination of the above.**

JUNIOR AND SENIOR YEARS.

This table contains, in addition, all the Elective studies of the preceding years, except those mentioned in the foot-note of the Letters Course on page 146.

PHILOSOPHY.	THEOLOGY.	LATIN.	GREEK.	NAT'L SCIENCE.
*Psychology..5 †History of Philosophy .3 Pedagogy.....3	†Old Testam'nt History 3 Greek Testament.....2 Hebrew.....2 Res. Compar. Religions...2	Cicero— DeSenectute } De Amicitia } 2 Horace—Odes 2 Composition..1 Cicero— Tusculan Disputations 3 Lucretius.....3	†Epic Poetry..3 †Metres.....1 *Drama.....3 *Metres.....2 *Literature ...1	General Chemistry. 5 General Biology..... 3 Sanitary Science.....3 Geology.....5
*Psychology..3 †History of Philosophy..5 *Theism. 5	†New Testament History 3 Greek Testament.. . .. 2 Homiletics... 2 Hebrew.....2 Res. Compar. Religions...2	Latin Lit. 2 Horace-Satires and Epities 2 Composition..1 Plautus.....3 Pliny—Epistles Cicero-Epistles} 2	†Epic Poetry..3 *Drama. 2 *Literature ...3	Qualitative Chemistry...5 Microscopy ...3
†MoralScience5 *Logic 4	†Church Hist. 4 *Evidences of Christianity 4 †Greek Testament.....2 Hebrew.....2 Res. Comp-Religions...2	Livy 3 Terence 2 Tacitus 2 Seneca.....2 Christian Hymns..... 1	†Lyric Poetry 2 †Metres. 1 *Plato 4 Literature 2	Mineralogy ...3 Organic Chemistry.....2 Vegetable Biology... 3

JUNIOR AND SENIOR YEARS—CONTINUED.

HISTORY, POLITICS AND ECONOMICS.	ENGLISH.	MATHEMATICS, PURE AND APPLIED.	MODERN LANGUAGES.
*Modern Continental History.....3 †PoliticalEconomy3 *Political Science 2 †U. S.Constitutional History 2 Research Classs in Politics and Economics.....2	Anglo-Saxon 3 †History of English Literature. 3 *Science and Rhetoric.....4 American Literature—Study of Masterpieces 4 English Lit.—Study of Masterpieces..4	Calculus. 3 Physics 3 Astronomy.....3 Quaternions.....3	French III and VI as described in the outline of work. German IV and VI as described in the outline of work. Italian Spanish Volapuk.....1
*Modern Continental History 3 †His. of Civilizat'n 3 †Political Economy3 *Political Science .3 *U. S. Con'n'l His..3 Research Class in Politics and Economics.....2	†Early English 5 *Anglo-Saxon. 3 History of English Literature..... 3 Trench on Words 2 American Literature—Study of Masterpieces 3	Calculus.....3 Physics 3 Astronomy 3	French IV and VI as described in the outline of work. German IV V and VI as described in the outline of work. Italian Spanish Volapuk. 1
†History of Civilization 3 *International Law4 †Constitutional History of England .4 Research Class in Questions of the Day.. 2	†Early English 3 *Anglo-Saxon 3 *Trench on Words.3 English Literature —Study of Masterpieces..... 5 Shakespear 2	Physics 3 Modern H. Algebra including Determinants 2 Astronomy 3 Surveying 3	French V and VII as described in the outline of work. German IV and V as described in the outline of work. Italian Spanish

Studies marked † will be taught during 1889-90; those marked * during 1890-91.

Explanations.—The foregoing tabulated courses of study ***may be varied*** to some extent from time to time at the discretion of the Faculty. They are printed to show the kind and range of work, and if not literally followed an equivalent will be substituted. The attention of the student is directed to the outline of the work on pages which soon follow.

Some very important changes have been made in the curriculum of studies. The system of college work is made to conform to the ***most advanced views*** of leading teachers, and is brought into harmony with the natural and necessary order of mental growth—both individual development and race civilization. A few words only are needed in this place.

By the time the student reaches the ***beginning of the Junior year*** he is regarded as prepared for ***more independent work*** than he could generally carry forward in the earlier part of his course. Henceforth his individual preferences are more largely consulted. It will be seen that lines of study and investigation are provided from which he may select the branches to be pursued. We invite attention to the following points:

1. ***A few studies*** are elective previous to the Junior year.

2. ***All studies in the Junior and Senior years*** are elective with the exception of Psychology, Logic and one term of Chemistry.

3. Students in these years must ***select from at least two lines.***

4. It is recommended that they select from ***three lines***—they must ***not select from more than five lines.*** These selections will be made under the advice of the Faculty, so that consistency of work may be secured.

5. The student will be required to have ***fifteen hours of recitation*** each week, or what is equivalent thereto.

6. A large amount of ***research work*** will be prosecuted during the Junior and Senior years.

7. *The Degree conferred at graduation will be determined by the course pursued up to the close of the Sophomore year*, in all courses ***except the Letters.*** If, previous to that time the student has taken the studies of the classical course, his degree

will be "Bachelor of Arts;" if Latin Scientific, it will be "Bachelor of Philosophy;" if Scientific, it will be "Bachelor of Science." The Junior and Senior studies are largely of a ***university character,*** preparing the student for independent investigation when, from graduation, he must carry forward his studies without the presence and guidance of a living teacher. The lines of study provided have been made so broad and varied that the ***candidate for any of the professions,*** as well as the business man, can obtain here the scholarship which will best fit him for his chosen and anticipated mode of life.

It will be seen that the order in which some of the branches of study are pursued is not quite the same as that adopted in many institutions, but no confusion grows out of this arrangement, as all the studies are taught in contiguous years. ***Those who have pursued Latin and Greek before the modern languages find no inconvenience in taking up these modern languages at any point in their course.*** Whatever may have been the order of study in the High Schools, the classification will depend on the ***amount and value of the work done,*** not on the fact of ***pursuing the precise branches laid down in our Preparatory School.***

BRIEF OUTLINE OF WORK PROVIDED FOR IN THE TABULATED COURSES OF STUDY.

MODERN LANGUAGES.

FRENCH.

I. The principal aim of this course will be the acquisition of a knowledge of the essentials of French grammar, and of an ability to translate at sight ordinary French prose. Books to be used: Bôcher's Reader; Erckmann-Chatrian, *Le Conscrit de 1813;* George Sand, *Francois le Champi*, or their equivalents—Three Terms. The grammar part will be taught by talks.

II. The object of this course is to learn to read French without translating it into English. The work in class will be

carried on in French as much as possible. Books to be used: Augier et Sandeau, *Le Gendre de M. Poirier;* Alexander Dumas, *Le Capitaine Pamphile;* George Sand, *La Petite Fadette.* Fall Term, 3 hours.

III. In this course students will read Moli'ere's *Le Misanthrope* and *Le Tartuffe* in class, and they will be required also to bring into class written resumes of other plays of Moli'ere. Fall Term, 2 hours.

IV. Racine's *Athalie* and *Bérénice* will be read and commented upon in class, and a few plays will be read as home-reading. Winter Term, 2 hours.

V. Some of Corneille's plays will be read and explained in French. A few of La Fountaines fables will be committed to memory. During this term attention will be given to the historical part of French grammar. Spring Term, 2 hours.

VI. In this course, which extends over two terms, the French literature of the 17th century will be discussed. Some of the works of the French writers of this period will be read at home. Fall Term, 2 hours. Winter Term, 2 hours.

VII. The spring term will be devoted to studying historical French grammar, based on *Brachet's Grammaire Historique de la langue francaise.* Spring Term, 2 hours.

GERMAN.

I. The elementary course will aim at reading ordinary German prose at sight, and at getting a knowledge of the essential part of German grammar. Books to be used: Zschokke's *Neujahrsnacht;* Eichendorffs *Taugenichts;* Fougŭe's *Undine;* Some of P. Heyse's shorter stories. Through the year, 5 hours.

II. Historical works will be read, such as are to be found in the Neue Plutarch; Freytag's *Bilder aus neuer Zeit.* In addition derivation of words will be studied. Lutz's Derivatives. Winter Term, 3 hours.

III. Selections from the works of *Goethe, Schiller, Lessing,* etc., will be read and discussed without translating the lessons. Spring Term, 3 hours.

IV. Literature of the 18th century. Through the year.

V. Selections from Martin Luther's writings. Talks will be given on the history of German grammar, based on Brandt's historical German grammar. Winter Term, 2 hours. Spring Term, 2 hours.

VI. Middle high German will be taken up in this course. The grammar will be taught by talks. The class will translate into modern German Hartman von der Aue's *Der arme Heinrich; das Nibelungenlied*, etc. Fall Term, 2 hours. Winter Term, 2 hours.

ITALIAN.

I. Toscani's Grammar. Composition. I Promessi Sposi.

II. Grammar. Selections from Ariosto, Boccacio, Petrarca and Dante.

SPANISH.

I. Jose's Grammar. Composition. El Eco de Madrid, Gil Blas.

II. Grammar. Selections from Calderon, Lope de Vega. Cervantes.

VOLAPUK.

Lutz's Grammar. Sprague's Grammar and Reader. Composition.

ANCIENT LANGUAGES.

LATIN.

The Roman method of pronouncing Latin is used.

Required—I. The work of the first year (3d Preparatory) comprises the translation of the first Book of Cæsar's Gallic War; the memorizing of selected passages and idioms; the reading at sight in class of passages afterwards carefully prepared; the translation of Latin sentences into English, and of English into Latin; and an outline study of Latin Etymology and Syntax.

The text books in this year are Comstock's First Latin Book, Kelsey's Cæsar, and Harkness' Standard Latin Grammar.

II. In the second year (4th Preparatory) Cæsar is read the first term and part of the second, (three Books); Sallust's Cat-

iline follows Cæsar in the second term, and is continued two hours a week in the third term, with Latin Prose Composition three hours a week.

Text books, Kelsey's Cæsar, Harkness' Sallust, Jones' Latin Prose Composition.

III. Cicero (three Orations)—first term—four hours. Harkness.

Cicero (three Orations)—second term—three hours. Harkness.

Composition—third term—two hours. Jones.

Ovid (extracts from the Metamorphoses)—third term—three hours. Lincoln.

SOPHOMORE YEAR.

IV. Virgil (Æneid, Books I and II)—first term—three hours. Greenough.

Virgil (Æneid, Books III, IV and V)—second term—five hours. Greenough.

Virgil (Æneid, Book VI, Eclogues)—third term—three hours. Greenough.

Elective.—1. Cicero, (Essays, De Senectute and De Amicitia) first term—two hours.

2. Horace (Odes)—first term—two hours.

3. Composition—first term—one hour.

4. Latin Literature—with selections from representative authors from the rise to the end of the classical period—second term—two hours.

5. Horace (Ars Poetica and selections from the Satires and Epistles)—second term—two hours.

6. Composition—second term—one hour. [6 can be taken only by students who have already had 3.]

7. Livy (Extracts from Books I to V, or Book XXI)—third term—three hours.

8. Terence (Andria or Adelphi—third term—two hours.

9. Cicero (Tusculan Disputations, Book I)—first term—three hours.

10. Lucretius—first term—two hours.

11. Plautus (Captivi and one other Comedy at sight)—second term—three hours.

12. Cicero (Epistles); Pliny (Epistles); second term—two hours.

13. Tacitus (Annals)—third term—two hours.

14. Seneca (Moral Essays)—third term—two hours.

15. Christian Hymns—third term—one hour.

GREEK.

I.

1. Historical Selections—Xenophon and Herodotus.
4. Demosthenes.
7. Homer's Iliad.
10. Greek Drama.
13. Greek Testament.
16. Greek Literature.
19. Hebrew.

II.

2. Historical Selections—continued.
5. Plato's Apology and Crito.
8. Homer's Odyssey.
11. Greek Drama.
14. Greek Testament.
17. Greek Literature.
20. Hebrew.

III.

3. Lysias and Isocrates.
6. Thucydides—Speeches in.
9. Pindar.
12. Plato, Phædo, or the Tenth Book of the Laws.
15. Greek Testament.
18. Greek Literature.
21. Hebrew.

The above courses in Greek, and in Hebrew, are arranged according to the succession of terms in which they regularly come—"I," Fall Term; "II," Winter Term; and "III," Spring Term. The numerals 1, 2, 3, indicate the courses of

the Freshman year; 4, 5, 6, those of the Sophomore year; 7, 8, 9, those of the Junior year; 10, 11, 12, those of the Senior year. From 13 on, the courses are collateral or elective. Those from 7 to 12, that is, of the Junior and Senior years, are also elective. Course 1 is always to be taken first. To find the number of hours a week allotted to each course in each term, turn to the "Courses of Study."

The methods used in teaching are based upon a firm conviction that it is *not* best to make the work dry and difficult; that it *is* best to aim at a good reading knowledge for the student; to introduce him early to a large amount of reading; and to let his knowledge of the language grow largely out of the text itself, rather than be confined to the outside help of books. More minute study comes later, as the aptitude for it is developed.

Careful attention is given to matters of history, archæology, and mythology, related to the texts read.

There is, everywhere, a free use of maps and charts, of which the Department has a good and constantly increasing supply.

Collateral research is required at every stage of all parts of the work.

Philology is one recitation a week, running through the year, beginning with the facts, and proceeding from them to the principles.

In Hebrew the same principles and methods govern as in Greek.

MATHEMATICS.

The Preparatory work covers the completion of arithmetic, three terms in algebra, aad two terms in geometry.

The following courses are provided in the collegiate department:

1. Advanced Algebra—a course of *five hours*. Fall Term.
2. Solid and Spherical Geometry—a course of *four hours*. Winter Term.
3. Application of Algebra to Geometry, and Original Geo-

metrical Demonstration and Solution—a course of *four hours*. Spring Term.

4. Plane and Spherical Trigonometry—a course of *five hours*. Fall Term.

5. General Geometry—a course of *five hours*. Winter Term.

6. Differential and Integral Calculus, with their applications to Geometry and Physical Science—a course of *five hours*. Spring Term.

7. Advanced Calculus—a course of *three hours*. Fall Term.

8. Advanced Calculus—a course of *three hours*. Winter Term.

9. Modern Higher Algebra, including Determinants—a course of *two hours*. Spring Term.

10. Quaternions—a course of *three hours*. Fall Term.

Courses 1, 3, 5 and 6, may be elected by students in whose General Courses they are not required studies.

ASTRONOMY AND APPLIED MATHEMATICS.

ASTRONOMY.

1. A course of three hours, during the fall term, in descriptive astronomy.

2. A course of two hours, during the winter term, being a continuation of the above, with special attention to the description and use of astronomical instruments and the simpler mathematical reductions.

Elective.—A course of three hours per week during the entire year, including a large amount of practical work in the Observatory, solar and lunar eclipses, observations and reductions for obtaining time, latitude, longtitude, etc., etc.

Students desiring to do more advanced work will be given special direction in various lines of investigation, and will be granted free use of the observatory equipment in the prosecution of their studies.

PHYSICS.

1. A course of three hours during the fall term in elementary work covering Mechanics, Hydrostatics and Pneumatics.

2. A course of four hours during the winter term in Electricity, Magnetism, and Sound.

3. A course of three hours during the spring term in Heat and Light.

4. With the Sophomore class, a course of three hours in the winter term and three hours in the spring term, largely mathematical in treatment, and covering the same general outline of topics as in the above elementary course.

Elective.—A course of three hours extending through the entire year, and covering such topics as may be especially chosen by students electing advanced work in physics.

SURVEYING.

Elective.—A course of three hours during spring term in practical surveying.—Land, Railroad, Leveling, Topographical Plotting, Field work.

CHEMISTRY.

Required.—1. Chemistry of the Non-Metals three times per week, together with Laboratory practice in the grouping and separating of Metals and Acids, two days each week and two hours each day, fall term.

Elective.—2. Qualitative Chemical Analysis, winter term. Laboratory practice two hours each day of the week.

3. Organic Chemistry, Laboratory work two hours per day, three days each week, spring term.

4. Mineralogy, descriptive and determinative; Laboratory work two hours per day, three days each week, spring term.

5. Sanitary Science, lectures three times each week.

6. Geology, Dynamical and Historical, five times each week.

7. Advanced work in the above courses will be given to students showing special proficiency.

Students expecting to teach will be given work to prepare them in chemical manipulations, the care and management of a Laboratory, etc.

BIOLOGY.

Required.—As preparatory to the College work, a term's work each in Human Physiology and Systematic Botany is taught.

In Freshman Year all students are required to take Zoology, four hours. Study from actual specimens is carried on as far as possible. Spring term.

Elective.—1. Microscopy, the practical study of the use of the Microscope in Biological Research. Each student is furnished with a Compound Microscope and other appliances for the preparation and mounting of objects for study; winter term, two hours each day, three days each week.

2. General Biology, in which underlying principles are discussed and low forms of life, both animal and vegetable, studied. Two hours of Laboratory work each day, and three days per week, fall term.

3. Animal Biology, a continuation of Course 2. Laboratory work two hours per day, three days per week; spring term.

4. Vegetable Biology, also a continuation of Course 2, in which several type forms of vegetable life are studied. Laboratory practice two hours a day, three days; spring term.

5. ***Research Class***, for the discussion of current Biological topics, reviews of periodical literature, etc., will meet once a week, and a class will be formed, during any term, when a sufficient number apply for it.

It is desirable that Course 1 should be taken before 2, 3 and 4, and Course 2 must precede 3 and 4.

In Courses 2, 3 and 4, students are required to (a) collect their material as far as practicable, (b) observe and study the object itself, (c) make careful notes on all points observed, (d) make drawings of separate structures and diagrams showing their relations to other structures, and (e) embody the knowledge thus obtained, and no other, in a written account.

Students who show special proficiency in Courses 2, 3 and 4 may continue the work as Collateral Research.

HISTORY, POLITICS AND ECONOMICS.

Students desiring to take any of the work here laid out must have been credited with at least five hours in U. S. History and ten hours in General History.

1. Modern Political History of Continental Europe. Lodge.

Special attention given to the Rise and Decline of the Ottoman Empire, and to the Rise of Prussia and Russia. Three hours per week, 1st and 2nd terms.

2. Modern English History. The time will be spent chiefly on the period from 1815 to the present date. Four hours first term.

3. History of Civilization. Guizot. Three hours 2nd term and two hours 3rd term.

4. Constitutional History of the United States. Von Holst. Two hours 1st term, three hours 2nd term.

5. Constitutional History of England. Gneist. Considerable attention given to recent changes in the Constitution of the British Empire. Four hours 3rd term.

6. Political Economy. Walker. Four hours 2nd term.

7. International Law. Davis. Prominence given to contemporaneous questions. Four hours 3rd term.

8. Political Science. Bluntschli. Reports by students on standard authorities on the subject. Two hours 1st term, three hours 3rd term.

9. ***A Research Class*** will be formed for work in Politics and Economics, during the first and second terms. Studies carried on involving, as far as possible, the use of original authorities; reports will be given upon books and articles from the periodicals; suggestions made as to best methods of work, etc. In the third term the work will consist chiefly of studies from the periodicals on current topics. Credits, from one to three hours, at the discretion of the Instructor in charge.

Note.—Courses 4–8 will be given only in alternate years. See table of studies.

Instead of any of the above, other courses may be given, if from any cause such change should seem desirable.

Only such students will be admitted to the Research Class as, in the judgment of the Instructor, are prepared to prosecute the work successfully.

BELLES-LETTRES.

An examination of the tabulated courses will be sufficient

to determine the work done. The range of studies is comparatively broad and the instruction is thorough.

PHILOSOPHY.

Required—I. Psychology—Method, by lectures and daily examination of standard authors.

Analysis of Mental Phenomena and Faculties specially insisted upon—first half of the year.

II. Logic—Inductive and Deductive—The identity of fundamental principles explained, and the special office of each form of Logic given. For outlines of the subject, Jevons; for fuller study of special subject, Mill and Lotze—half a year.

Elective.—III. History of Philosophy.—This must be preceded by Psychology in order that there may be a standard of Philosophy in the mind of the student with which to compare the theories advanced by the different Schools. A thorough analysis of each school will be presented, with the two-fold aim of learning the History of Philosophic Thought, and determining what is true in the different systems studied. The first half of the year—several works used.

IV. Moral Science.—The fundamental principles will first be considered, then their application to human life. This study follows Psychology, and is pursued in the latter half of the year. Four-fifths of a term—Calderwood and Porter.

V. Theism—Bowne used as a text book—taught during the Spring term.

VI. Evidences of Christianity—A careful scrutiny of the several classes of evidence relied upon, with the study of the bearing of the same on the question of a divine revelation as appearing in the bible.

COURSE IN CONSERVATORY OF MUSIC.

[Diploma given on completion of course.]

FIRST YEAR.

GRADE I.—First part of Instruction Book—(New England Conservatory, or Mason & Hoadley), studies by Gurlitt, Loeschhorn, Biehl.

GRADE II.—Kohel Op. 50 Duvernoy Op. 120. Loeschhorn Op. 65. Eschman studies.

SECOND YEAR.

GRADE III.—Bertini Op. 26-32. Czerny Op. 336. Loeschhorn Op. 66.—Books 1 and 2 Heller Op. 47.

GRADE IV.—Czerny Op. 299. Loeschhorn Op. 66.—Book 3. Heller Op. 16.—1st Book. Berens Op. 61. Krause Op. 5. Kohler Op. 128—1st Book.

THIRD YEAR.

GRADE V.—Czerny Op. 409 and 740. Loeschhorn Op. 67.—1st Book. Heller Op. 16—2nd Book. Kohler Op. 128—2nd Book.

Harmony, through the year.

GRADE VI.—Loeschhorn Op. 67—2nd and 3rd Books. Loeschhorn Op. 118. Cramer's studies, Bulow's Ed.—1st Book. Musical History.

FOURTH YEAR.

GRADE VII.—Cramer's Studies.

Chopin Op. 10.

Moscheles Op. 70.

Haberbier Studies, Poesies.

Clementi—*gradus et parnassum.*

Harmony and counterpoint, through the year.

Text Books in Harmony—Parker's Theory, Richter's Manual of Harmony, and Richter's Counterpoint.

Musical form by Cornell.

Degree.—The degree of Bachelor of Music—B. Mus.—will be conferred upon, such students as shall, in addition to the above, complete the required literary work of the LETTERS COURSE, or if preferred, the required studies of either of the other college courses.

SCHOOL OF PAINTING.

COURSE OF INSTRUCTION.

[On completion of this course a diploma is given.]

FIRST YEAR.

Freehand, outline and memory drawing with charcoal and pencil. Shading from flat and simple objects. Drawing and shading from casts in charcoal. Painting from flat and monochrome.

Mechanical drawing by instruments.

SECOND YEAR.

Drawing from solid models. Shading from casts in crayon. Portrait in crayon. Biography and Art History. Linear perspective, shades and shadows by freehand and instruments. Harmony and mixture of colors. Painting in oil from flat examples and still life.

THIRD YEAR.

Historical lessons. The Renaissance in painting. Ornamental design. India ink drawing and designing for reproduction. Painting in sepia, neutral tint and water colors. Portrait in oil. Landscape painting from nature.

FOURTH YEAR.

Painting from life. Selection, composition and design. Animal, landscape and figure painting from nature. Schools and masters of painting. Masters and methods in modern art.

Degree.—The degree of Bachelor of Painting—B. P.—will be conferred upon such students as shall in addition to the above complete the required literary work of the ***Letters Course,*** or if preferred, the required studies of either of the other college courses.

EXPENSES IN THE VARIOUS DEPARTMENTS OF THE INSTITUTION.

Rates of Board.—The Institution does not ***conduct a boarding hall,*** but the students are able to make arrangements for board at figures as moderate as college boarding halls ever charge, and, as a rule, obtain ***board of a better quality*** than is ordinarily procured on the old plan. ***Table board*** in private families usually costs from $2.25 to $2.50 a week. A large number of students organize ***boarding clubs,*** enabling them to reduce the rate to $2 or $1.75 a week. This is now quite a popular method of providing for board. There are other students who ***board themselves,*** expending perhaps one-half the cost of club board, and some even less. Furnished rooms can be rented usually at ***fifty*** or ***seventy-five cents a week*** for each student.

The following is a schedule of charges made by the Institution. It will be seen that for ***literary work*** there is ***no tuition.***

PREPARATORY SCHOOL AND ACADEMIC DEPARTMENT.

Tuition	Free
Incidental fee, per term	$5 00

COLLEGE.

Matriculation fee, paid but once	5 00
Tuition	Free
Incidental fee, per term	5 00
Graduation fee	5 00
Students in chemistry deposit at the opening of the term, to cover cost of material used	4 00

If balance to their credit at the end of the term, it is refunded.

Students using the microscope pay a small rent.

CONSERVATORY OF MUSIC.

Matriculation	Free
Instruction in Chorus Class	Free
Instruction in rudiments of vocal music, per term	1 00
Incidental fee, per term	2 50
Tuition, in class of three—on piano or organ	12 00
Tuition, in class of two—on piano or organ	14 00
Tuition, private lessons—on piano or organ	20 00
Tuition in Harmony—once a week	4 00
Voice culture—class of two	5 00
Voice culture—private lessons	8 00
Voice culture—private lessons—half hour	5 00
Instruction on violin, cello, etc	9 00
Instruction on cornet, clarionet, flute, etc	6 00
Membership in the Orchestra	Free
Membership in the Band	Free
Use of piano or organ—per hour, for term	2 00
Graduating Diploma	3 00

When literary studies are taken in connection with music, the same incidental fee is charged as in the college.

It will be seen that class rates are much cheaper than private lessons, and until the student reaches the graduation year the instruction thus received is as profitable as by private lessons.

To students receiving instruction on the piano or organ who have not completed the Second Grade, there is a reduction of 25 per cent on the above rates.

SCHOOL OF PAINTING.

Incidental fee, per term	$ 2 50
Tuition in oil painting, water color, India ink, etc., per term	20 00
Single lessons	50
China painting or other purely decorative work—Single lessons	60

In no case does the incidental fee exceed $5.00 per term, though the student may be pursuing studies in several departments at the same time.

It will also be seen that no tuition is charged for instruction in literary studies, tuition being required only for instruction in music, painting, commercial studies or elocution.

The matriculation and graduating fees are only one-half as much as charged by many institutions.

It will also be perceived that the charges for instruction in music depend on the class to which the student belongs, and the amount of instruction received. The schedule of prices ranges all the way from $4 to $20 or $30 a term. It is at the ***option of the student.***

COMMERCIAL DEPARTMENT—SHORTHAND, &C.

Tuition, full course, including all studies, except Typewriting:

First term, in advance	$20 00
Second term, in advance	17 50
Third term, in advance	12 50

Besides the regular course there will be classes to accommodate those from other departments who wish to take special work in this department, as follows:

Book-keeping, per term, five hours a week	$ 5 00
Book-keeping, per term, three hours a week	4 00
Penmanship, per term, five hours a week	3 00
Penmanship, per term, three hours a week	2 50
Commercial Arithmetic, five hours a week	2 50
Commercial Law, three hours a week	2 00
Shorthand and Typewriting (full course)	30 00

ELOCUTION.

Tuition, class and private,

Class—Per term, to college students	4 00
Per term, non-college students	5 00
Private—Per term, ten weeks course (college students)	16 00
Per term (non-college students	20 00

Arrangements for taking more lessons at the same rates can be made at the beginning of terms. For information concerning courses, address—Department of Oratory, Albion College, MARK B. BEAL.

PART IV.

CATALOGUE OF ALBION COLLEGE.

CORPORATION.

TRUSTEES.

L. R. FISKE, LL. D., *ex-officio*, President, Albion.

ELECTED BY THE DETROIT CONFERENCE.

Name.	*Residence.*	*Term Expires.*
Rev. J. S. Smart, D. D	Flint	1889
Horace Hitchcock	Detroit	1889
Rev. H. C. Northrup, A.M. B.D.	St. Clair	1890
John M. Hall, A. M	Flint	1890
Hon. H. M. Loud	Oscoda	1891
Otis A. Critchett, A. M	Monroe	1891

ELECTED BY MICHIGAN CONFERENCE.

Rev. Amos M. Gould, B. D.	Ionia	1889
*M. R. Bissell	Grand Rapids	1889
Rev. Levi Master, A. M	Kalamazoo	1890
James W. Sheldon, Treas	Albion	1890
Hon. H. E. Staples	Whitehall	1891
Rev. W. H. Brockway, Vice Pres.	Albion	1891

ELECTED BY THE SOCIETY OF ALUMNI.

Reuben E. Clark, A. M	Chicago	1889
David Knox, A. M	Three Rivers	1890
Samuel Dickie, M. S.	Albion	1891

ENDOWMENT FUND COMMITTEE.

Wm. H. Haze, M. D	Lansing	1889
Hon. Daniel Striker	Hastings	1892
S. P. Sidnam	Hastings	1895

ALBION PROVISIONAL BOARD OF CONTROL.

James W. Sheldon, Secretary and Treasurer.
Rev. W. H. Brockway.
Jacob Anderson.
Orlando C. Gale.
Martin Haven.

*Deceased.

SECRETARY OF BOARD OF TRUSTEES.

Delos Fall, M. S.....Albion

BOARD OF VISITORS AND EXAMINERS.

APPOINTED BY SUPERINTENDENT OF PUBLIC INSTRUCTION.

Rev. E. W. Ryan, D. D.....Bay City
Supt. J. J. Bronson.....St. Joseph
Prof. B. A. Hinsdale.....Ann Arbor

APPOINTED BY DETROIT CONFERENCE.

Rev. J. M. Gordon.....Cheboygan
Rev. H. S. White.....Flint

APPOINTED BY MICHIGAN CONFERENCE.

Rev. James Hamilton.....Battte Creek
Rev. Robert Shorts.....Mt. Pleasant

STANDING COMMITTEES FOR 1888–9.

EXECUTIVE COMMITTEE.

L. R. Fiske, W. H. Brockway, J. W. Sheldon, L. Master.

AUDITING COMMITTEE.

L. R. Fiske, W. H. Brockway, J. W. Sheldon, L. Master.

FINANCE COMMITTEE.

Horace Hitchcock, O.A. Critchett, H.M. Loud, Samuel Dickie.

COMMITTEE ON FACULTY.

O. A. Critchett, Levi Master, *M. R. Bissell.

COMMITTEE ON RULES AND REGULATIONS.

L. R. Fiske, A. M. Gould, H. E. Staples, John M. Hall.

COMMITTEE ON COURSES OF STUDY.

L. R. Fiske, Samuel Dickie, H. C. Northrup, David Knox.

COMMITTEE ON LIBRARY AND APPARATUS.

Reuben E. Clark, J. S. Smart, F. M. Taylor.

COMMITTEE ON BUILDINGS AND GROUNDS.

L. R. Fiske, W. H. Brockway, J. W. Sheldon.

ASBURY CENTENARY ASSOCIATION.

OFFICERS.

President—Bishop Wm. X. Ninde, D. D., LL. D., Topeka, Ks.

*Deceased.

Vice Presidents—Pres. L. R. Fiske, D. D., LL. D., Albion; Gen. Clinton B. Fisk, New York; Hon. Thos. W. Palmer, A. M., Detroit; Julius Berkey, Esq., Grand Rapids. Secretary—Prof. Delos Fall, M. S., Albion; Corresponding Secretary—Rev. J. S. Smart, D. D., Flint; Treasurer—J. W. Sheldon, Esq., Albion.

BOARD OF MANAGERS.

The Bishops of the Methodist Episcopal Church and the Trustees of Albion College are, *ex-officio*, members of the Board of Managers.

MANAGERS ELECTED BY MICHIGAN CONFERENCE.

Name.	*Residence.*	*Term Expires.*
Rev. D. F. Barnes, D. D	Kalamazoo	1889
Rev. J. K. Stark	Cadillac	1889
Wm. Van Loo, Esq	Big Rapids	1889
*M. R. Bissell, Esq	Grand Rapids	1889
Rev. Geo. S. Hickey, A. M	Jackson	1890
Rev. M. M. Callen, D. D	Lansing	1890
Hon. J. W. Moon	Muskegon	1890
D. W. Peabody, Esq	Hanover	1890
O. R. Wilmarth, Esq	Grand Rapids	1890
Hon. Hampton Rich	Ionia	1890
Rev. J. A. Sprague	Three Rivers	1891
M. J. Bigelow, Esq	Kalamazoo	1891
W. P. Sidnam, Esq	Hastings	1891
Rev. N. L. Bray	Coldwater	1891

MANAGERS ELECTED BY DETROIT CONFERENCE.

Rev. L. P. Davis, A. M	Detroit	1889
Rev. C. T. Allen, D. D	Pontiac	1889
Hon. J. R. Whiting	St. Clair	1889
F. R. Beal, Esq	Northville	1889
Rev. Arthur Edwards, D. D.	Chicago, Ill	1890
Rev. John McEldowney, D. D.	Port Huron	1890
Rev. W. W. Washburn, D. D.	Saginaw	1890
Hon. John Owen	Detroit	1890
Hon. H. M. Loud	Oscoda	1890
T. C. Owen, Esq	Detroit	1890
Rev. J. E. Jacklin	Flint	1891
Albert Miller, Esq	Bay City	1891
Marshall H. Godfrey, Esq	Detroit	1891

*Deceased.

BOARD OF INSTRUCTION.

LEWIS R. FISKE, PRESIDENT.

CARL B. SCHEFFLER, DIRECTOR OF CONSERVATORY.

ELLA HOAG BROCKWAY, PRECEPTRESS.

ROLLIN C. WELCH, SECRETARY.

REV. L. R. FISKE, D. D., LL. D.
John Owen Professorship of Intellectual and Moral Philosophy.

REV. ROLLIN C. WELCH, A. M.
John Morrison Reid Professorship of Greek Language and Literature.

DELOS FALL, M. S.
David Preston Professorship of Biology and Chemistry.

Samuel O. Knapp Professorship of Geology and Mineralogy.

FRED M. TAYLOR, A. M., Ph. D.,
History and Belles Lettres.

CARL B. SCHEFFLER,
Piano, Harmony and Counterpoint.

SAMUEL D. BARR, A. M.
W. H. Brockway Professorship of Mathematics.

ROBERT S. AVANN, A. M., Ph. D.,
Latin Language and Literature.

FREDERICK LUTZ, A. M.,
Modern Languages.

STEWART F. GANUNG,
Piano and Organ.

E. JOSEPHINE CLARK, A. M.,
English Language and Literature.

CHARLES E. BARR, A. M.
Ezra Bostwick Professorship of Astronomy.

JENNIE A. WORTHINGTON,
Piano.

DELLA MORGAN,
Voice Culture.

G. W. STORMFELS,
Orchestral Instruments.

DWIGHT B. WALDO, Ph. B.,
Instructor in German and History.

DURAND W. SPRINGER, B. S.,
Principal Commercial Department.

LILLA G. SMART,
Piano.

MARK B. BEAL,
Oratory.

ELLA HOAG BROCKWAY, Ph. M.,
Musical History.

F. C. COURTER,
Drawing, Perspective and Painting.

MRS. H. W. MOSHER,
Decorative Painting.

W. J. McLEAN,
Teacher of Penmanship and Shorthand in Commercial Department.

FRED M. TAYLOR, A. M., Ph. D.,
Librarian.

Rev. B. S. TAYLOR, M. D.,
Assistant Librarian.

STUDENTS IN THE COLLEGE.

SENIORS.

NAME.	COURSE.	RESIDENCE.
M. Maud Beard,	Cl	Albion.
Stella M. Coney,	Lat Sc	Albion.
John F. Critchett,	Lat Sc	Monroe.
Dora B. Davis,	Cl	Kalamazoo.
Hattie M. Doolittle,	Lat Sc	Albion.
Elliot R. Downing,	Sc	Ishpeming.
Edward A. Edmonds	Lat Sc	Bellevue.
Homer Folks,	Cl	Hanover.
Henry G. Hipp,	Sc	Almena.
Olive B. Hull,	Sc	Albion.
Luther E. Lovejoy,	Cl	Albion.
Sheridan F. Master,	Cl	Kalamazoo.
May A. Osborne,	Cl	Albion.
Harvey N. Ott,	Lat Sc	Albion.
Fisk M. Ray,	Lat Sc	Jackson.
Ira D. Travis,	Lat Sc	Alma.
Will S. White,	Lat Sc	Flint.

Cl.—Classical. Lat. Sc.—Latin Scientific. Sc.—Scientific. Let.—Letters.

JUNIORS.

NAME.	COURSE.	RESIDENCE.
Maude E. Bristol,	Cl	Albion.
Kittie Carland,	Let	Corunna.
Ruth E. Coney,	Lat Sc	Albion.
Edward R. Cunningham,	Lat Sc	Spring Arbor.
Palmer M. Dearing,	Lat Sc	Albion.
Clarence A. Fiske,	Cl	Albion.
Myrtie E. Graves,	Lat Sc	Albion.
Will L. Holmes,	Lat Sc	Eaton Rapids.
Arthur R. Kellogg,	Lat Sc	Quincy.
Jane M. Laing,	Lat Sc	Stoney Creek.
Asa E. Mattice,	Cl	Spring Arbor,
Belle Miller,	Let	Litchfield.
Mina Mudge,	Sc	Hastings.
Emma Parsons,	Sc	Big Rapids.
Eugene C. Peirce,	Cl	Clayton.
Edgar J. Townsend,	Lat Sc	Litchfield.
Kingsley VanLoo,	Lat Sc	Big Rapids.
Ira T. Weldon,	Sc	Mosherville.

SOPHOMORES.

NAME.	COURSE.	RESIDENCE.
Lewis F. Abbott,	Lat Sc	Galesburg.
Edward A. Armstrong,	Cl	Detroit.
Jennie M. Armstrong,	Cl	Denver, Col.
John L. Austin,	Lat Sc	Detroit.
Elmer E. Ball,	Sc	Albion.
James H. Bartley,	Sc	Albion.
George R. Berkaw,	Lat Sc	Parma.
May E. Bovee,	Lat Sc	Northville.
Carrie M. Bruce,	Cl	Albion.
Jennie E. Campbell,	Cl	South Haven.
Robert J. Floody,	Sc	Albion.
Elizabeth A. George,	Lat Sc	Hanover.
Frank Laberteaux,	Sc	Albion.
E. Watson Laing,	Cl	Ortonville.
Otis A. Leonard,	Lat Sc	Albion.
Owen R. Lovejoy,	Cl	Albion.
William C. Mitchell,	Sc	Morley.
Herbert W. Mumford,	Sc	Moscow.
M. Irene Niles,	Let	Flushing.
Dollie G. Pierce,	Lat Sc	Utica.
Ernest G. Rogers.	Sc	Medina.
Emma L. Rork,	Let	Agnew.
Lydia M. Rork,	Lat Sc	Agnew.
Zua W. Thomas,	Cl	Albion.
Charles B. Warren,	Lat Sc	Albion.
Homer G. Warren,	Lat Sc	Flint.
Mary H. Welch,	Lat Sc	Schoolcraft.
Fred N. Weyant,	Lat Sc	Saranac.
Cora M. Winkler,	Let	East Saginaw.
George W. Wright,	Cl	Mayville.

FRESHMEN.

NAME.	COURSE.	RESIDENCE.
Charles B. Allen,	Cl	Spring Arbor.
Frank E. Allen,	Cl	Albion.
Louis W. Anderson,	Lat Sc	Albion.
John F. Arnold,	Cl	Albion.
George J. Bunday,	Sc	Albion.
Ella L. Caster,	Lat Sc	West Bay City.
Fred W. Durfee,	Sc	Plymouth.
Seymour C. Eslow,	Lat Sc	Homer.
John W. Fair,	Lat Sc	Negaunee.
George B. Ferguson,	Cl	Albion.
Lou J. Frary,	Let	Fenton.
J. Irving Godfrey,	Lat Sc	Parma.
Stanley C. Griffin,	Sc	Albion.
Lucy E. George,	Sc	St. Joseph.
Harry A. Haze,	Let	Lansing.
Otto O. Inamato,	Cl	Hakodate, Japan.
Essie R. Kulp,	Cl	Otsego.
Walter A. Lampman,	Lat Sc	Hastings.
Arthur L. Landon,	Lat Sc	Albion.
Edward R. Loud,	Cl	Albion.
W. Scott Maywood,,	Lat Sc	Menominee.
Genevieve Moon,	Lat Sc	Cedar Springs.
Emory L. Niskern,	Lat Sc	Manistee.
Rolland L. Parmeter,	Sc	Albion.
Charles A. Phelps,	Let	Whitehall.
Clara L. Procter,	Sc	Wallace, Ill.
Francis A. Scott,	Lat Sc	Brown City.
Charles H. Sharer,	Sc	Cedar Springs.
Edwy R. Shaw,	Lat Sc	Eaton Rapids.
Hattie B. Smith,	Lat Sc	Springport.
Zella Starks,	Lat Sc	Rice Creek.
Fannie J. Staley,	Lat Sc	Grayling.
J. Wilson Staley,	Lat Sc	Grayling.
Susie Turner,	Let	Evart.
Nellie S. Valentine,	Let	Litchfield.
Allen J. Wilder,	Cl	Tekonsha.
Lizzie M. Wright,	Lat Sc	Mayville.

STUDENTS IN THE PREPARATORY SCHOOL.

FOURTH YEAR.

NAME.	COURSE.	RESIDENCE.
Lottie Allen,	Let	Albion.
Rena M. Babcock,	Lat Sc	Albion.
Rosa Ball,	Sc	Albion.
Lucien A. Barnes,	Sc	El Dorado, Ark.
Bertha Barrett,	Let	Niles.
John H. Bass,	Cl	Galesburg.
Carrie I. Billinghurst,	Lat Sc	Rice Creek.
Dresden E. Birtch,	Let	West Branch.
Bertha Bissell,	Lat Sc	Albion.
John T. Blackwood,	Lat Sc	Northville.
Eugene T. Carpenter,	Lat Sc	Williamsburg.
Lyman Chandler,	Let	East Aurora, N. Y.
Warren P. Clark,	Cl	Mendon.
Harry R. Dearing,	Sc	Albion.
Byron G. Doolittle,	Sc	Tekonsha.
Ira H. Dysinger,	Cl	Albion.
Wilbur D. Engle,	Cl	Eaton Rapids.
Charles H. Fenn,	Cl	East Tawas.
Uly H. Fillio,	Cl	South Adams.
Geo. W. Eisher,	Lat Sc	Augusta.
O. Harry Gale,	Sc	Albion.
Harold T. Craves,	Let	Spiritwood, Dak.
James C. Graves,	Let	Albion.
M. Belle Herick,	Lat Sc	Albion.
Sidney Hull,	Sc	Albion.
William J. Hutchinson,	Sc	Portland.
Neil M. Kerr,	Cl	Vermontville.
Hattie B. Mayes,	Lat Sc	Albion.

Charles G. Maywood,	Lat Sc	Menominee.
Henry H. Merriman,	Lat Sc	Lowell.
Roy A. Miller,	Lat Sc.	Mason.
Helen E. Osborne,	Lat Sc	Albion.
Leslie M. Ray,	Lat Sc	Ishpeming.
Arthur H. Rockafellow,	Lat Sc	Clare.
Genevieve A. Rork,	Lat Sc	Agnew.
Samuel Schultz,	Lat Sc	Lansing.
Jay H. Scott.	Sc	Albion.
Lu V. Sherman,	Let	Petoskey.
Cora L. Theurer,	Lat Sc	Montague.
Lewis F. Voke,	Sc	Shanis Crossing, O.
Leland M. White,	Lat Sc	Lacota.
Grace G. Yost,	Let	Albion.

THIRD YEAR.

NAME.	COURSE.	RESIDENCE.
Wm. E. Aiken,	Sc	Sheridan.
Ira A. Beddow,	Sc	Southfield.
Harlon G. Clark,	Let	Fowlerville.
Ezra A. Cross,	Let sc	Albion.
Clarence E. Deal.	Cl	Oshtemo.
Lucinda Dickey,	Cl	Burlington.
E. Clarence Dunning,	Cl	Albion.
Walter I. Elmer,	Let	Harrisville.
James B. Field,	Sc	Frontier.
Seldon B. Ford,	Sc	Walworth, N. Y.
Kate M. Marsh,	Cl	Albion.
A. Ames Maywood,	Cl	Menominee.
Annie P. Mitchell,	Sc	Marquette.
G. Glenn Newell,	Let	Grand Rapids.
Ralph M. Newman,	Sc	Jackson.
Martha E. Niles,	Sc	Flushing.
Violet Rawlinson,	Cl	Plainwell.

Anna M. Scotten,	Let	Plymouth.
Claude P. Smith,	Lat Sc	Tompkins.
Thomas C. Snell,	Sc	Bayport.
Oscar B. Warren,	Cl	St. Joseph.
William A. Watkins,	Lat Sc	Clam Lake.

SECOND YEAR.

NAME.	COURSE.	RESIDENCE.
Nellie Batt,	Cl	Tekonsha.
Martha A. Brockway,	Cl	Albion.
Gertrude M. Brown,	Let	Pleasant Lake, Ind.
Gertrude Brundage,	Let Sc	Kalamazoo.
Grace Brundage,	Sc	Kalamazoo.
Carrie Hoag,	Let	Parma.
William R. Longstreet,	Lat Sc	Saginaw.
Vernon Mayes,	Lat Sc	Albion.
John E. Mealley,	Cl	Detroit.
Anton Ravn,	Cl	Oscoda.
Carl W. Riddick,	Cl	Menominee.
Kate Rood,	Let	Albion.
Fannie M. Rumsey,	Let	Leslie.
Ella S. Schall,	Let	Dumont, Minn.
William E. Sheehan,	Let	Somerset, N. Y.

FIRST YEAR.

NAME.	COURSE.	RESIDENCE.
P. Bruce Brockway,	Lat Sc	Albion.
William R. Carter,	Let	Wakeshma.
William E. Chamberlain,	Cl	Palmyra.
Willis W. Chatfield,	Sc	Wacousta.
Minnie M. Coykendall,	Cl	Albion.
Lula B. Fisher,	Let	Albion.
Casper J. Fow,	Sc	Shepardville.

George A. Galliver,	Lat Sc	Fostoria.
William H. Hurlbut,	Let	Kendall.
Frank C. Ives,	Cl	Mason.
Thomas H. Leaman,	Let	Kalamazoo.
Emory T. Middleton.	Cl.	Owosso.
Thomas Nahbenayash,	Sc	Munising.
Ernest G. Perkey,	Cl	Bronson.
Maude M. Roberts,	Cl	Albion.
Daisey H. Snell,	Lat Sc	Bayport.
Joseph W. Snell,	Lat Sc	Bayport.
Renafrew A. Wightman,	Sc	Albion.

ACADEMIC STUDENTS.

NAME	RESIDENCE.
Maud F. Alsdorf,	Albion.
Lynda Barclay,	Rice Creek.
William Barth,	Grand Rapids.
Blanche Bartholomew,	Charlevoix.
Myrtie L. Bell,	Mason.
Hattie Bellamy,	Pulaski.
Myra Bellamy,	Pulaski.
Allen D. Billinghurst,	Rice Creek.
Alfred Briggs,	Saline.
Ada M. Bullen,	North Aurelius.
Susie E. Bullen,	North Aurelius.
Sarah Budlong,	Marshall.
Guy M. Canfield,	Detroit.
Nettie Carr,	Eaton Rapids.
Etta M. Carrier,	Lansing.
Minnie O. Carrier,	Albion.
Adam Clark,	Charlevoix.

Thomas W. Clemo,	Bad Axe.
Fred L. Conroy,	Albion.
Maud H. Covert,	Midland.
Fred Culver,	Mosherville.
Frank W. Culver,	Mosherville.
Nellie M. Dalrymple,	Albion.
Frank E. Deming,	Homer.
Luetta Densmore,	Hanover.
Florence Emerson,	South Haven.
Clara L. Engle,	Hartford.
Thomas Evans,	Vulcan.
Frank A. Finch,	Albion.
Alta C. Ford,	Birmingham
Harry L. Gibbs,	Mayfield.
Fred J. Goodenow,	Albion.
Herbert A. Hall,	Lansing.
Fred I. Herrick,	Albion.
Annie Higgins,	Springport.
Thomas W. Hill,	Detroit.
R. Will Holmes,	Caseville.
Lulu I. Hoyt,	Marengo
Carrie May Hovey,	Albion.
Wm. A. Howard,	Tekonsha.
Myrtle A. Ickes,	Middleville.
Lulu E. Jackson,	Climax.
June E. Kirk,	Albion.
William Knowles,	Devereux.
Lizzie L. Landon,	Albion.
Clara P. Laraway,	Ypsilanti.
Hattie L. Linebaugh,	Sheridan.
Hattie A. Lovejoy,	Albion
Maggie C. McNaughton,	Luther.
Carl W. Morehouse,	Albion.
Bert C. Murray,	Albion.
Herbert C. Nowlin,	Albion.
Frank D. Omans,	Greenland.

Dell M. Palmer,	Jefferson.
May B. Paris,	Climax.
L. Ellen Parsons,	Fowlerville.
Blanche L. Percy,	Brooklyn, N. Y.
John F. Peschman,	Martin.
Clark M. Procter,	Wallace, Ill.
Ola Ramsdell,	Moscow.
Nettie M. Raub,	Albion.
Willard Reed,	Sheridan.
Grace E. Richardson,	Cedar Springs.
Meda Robbins,	Bowen's Mills.
Jinks S. Rodgers,	Sumerville.
Daisey A. Rogers,	Medina.
J. Leora Rouse,	Homer.
Jacob G. Ruoff,	Philadelphia, Pa.
Clara M. Scott,	Vicksburg.
Frank I. Schaffmaster,	Bronson.
Minnie Sleight,	Lansing.
Delta N. Smith,	Mosherville.
Effie G. Stanton,	Union City.
Carrie Thwaites,	Long Rapids.
John E. Thwaites,	Long Rapids.
Lola L. Todd,	San Francisco, Cal.
Cora E. Travis,	Hartford.
Frank W. Urch,	New Baltimore.
Wm. H. B. Urch,	Jackson.
Hattie Van Zollenburg,	Petoskey.
Inez O. Warner,	Albion.
Jennie A. Watkins,	Cadillac.
Bertha Weeks,	Athens.
W. S. V. White,	Olivet.
Ezra O. Wightman,	Albion.
Emma D. Williams,	Sheridan.
Will H. Whitcomb,	Marshall.
Ethel Wiselogel,	Pulaski.

STUDENTS IN THE CONSERVATORY OF MUSIC.

GRADUATES.

NAME.	RESIDENCE.
Grace Brown,	Pleasant Lake, Ind.
Laura T. Bidwell,	Sacramento, Cal.
Lu Ella Hartung,	Homer.
Crissey Ott,	Marengo.
Lilla G. Smart,	Flint.
F. Maud Snell,	Payport.
Lula Todd,	San Francisco, Cal.

See Course of Instruction, page 160.

GRADE VII.—GRADUATING CLASS.

Flora Adgate,	Ionia.
Mary L. Barnes,	Albion.
Lillian E. Kirk,	Howell.
Matie E. Lownsbery,	Albion.
D. Belle Murray,	Homer.
E. May Moses,	Seneca Falls, N. Y.

GRADE VI.

Lulu Andrews,	Albion.
Mrs. Geo. Bolster,	Albion.
Maud Carr,	Eaton Rapids.
Ida M. Engle,	Eaton Rapids.
Anna E. Hull,	Albion.
Bida A. Mayette,	Albion.
Belle Miller,	Litchfield.
Eva L. Marzolf,	Cato.
Carrie B. Perkey,	Bronson.
John M. Pierson,	Milford.

Anna A. Raub,	Big Rapids.
Lucille B. Scott,	DeWitt.
Cora E. Travis,	Hartford.
Tillie Weil,	Jackson.
Katie Whitaker,	Parma.
Jean M. Whitcomb,	Marshall.

GRADE V.

Mary Boynton,	St. Louis.
Louie Doust Ellis,	Eaton Rapids.
Belle Fiske,	Albion.
Mary Koons,	White Oak.
Lulu D. Keller,	Albion.
Mrs. L. L. Linderman,	South Haven.
Effie M. Manning,	Chesaning.
Chas G. Maywood,	Menominee.
August A. McClellan,	Albion.
Millie M. Millard,	Spring Lake.
Nellie O. Miller,	Marshall.
Birdie E. Power,	Wixom.
Daisy A. Rogers,	Medina.
Genevieve A Rork,	Agnew.
Mrs. H. R. Stoepel,	Albion.
Anna M. Scotten,	Plymouth.
Frances M. Tuttle,	Walled Lake.
Mame R. Taylor,	Tompkins.
Hattie Van Zollenburg,	Petoskey.
Nellie S. Vallentine,	Litchfield.
Lizzie M. Wright,	Mayville.
Emma L. Warren,	Albion.

GRADE IV.

Blanche Bunday,	Albion.
Martha A. Brockway,	Albion.
Bertha Barrett,	Niles.
Sybil Bennett,	Sacramento, Cal.
Ollie Cotton,	Albion.

Clarisa B. Dickie,	Albion.
Myrtie L. Eddy,	Lexington.
Lulu E. Jackson,	Climax.
Minnie O. Lewis,	Litchfield.
Anna Loehr,	Marengo.
M. Irene Niles,	Flushing.
Clara Oberhaltzer,	Alanson.
Maud M. Phelps,	Whitehall.
Carrie Quivey,	Parma.
Lulu P. Rouse,	Homer.
Jessie M. Shepard,	Albion.
Adell Stevens,	Albion.
Cora M. Winkler,	East Saginaw.
Emma Wright,	North Aurelius.

GRADE III.

Ida M. Ackley,	Dowagiac.
Carrie M. Bruce,	Albion.
May E. Bovee,	Northville.
Kittie Carland,	Corunna.
Hellen A. Davis,	Albion.
Bertha E. Emmons,	Albion.
Clara L. Engle,	Hartford.
Nellie Groff,	Albion.
Winifred L. Gale,	Albion.
Lizzie Helmer,	Parma.
Myrtle A. Ickes,	Middleville.
June E. Kirk,	Albion.
Mary E. Lee,	Dexter.
Hattie A. Lovejoy,	Albion.
Katherine Roode,	Albion.
Clara F. Springer,	Frontier.

GRADE II.

Lottie E. Bruce,	Albion.
Grace J. Brundage,	Kalamazoo.
Maggie Cole,	Albion.

Mabel Cunningham,	Homer.
Nellie Dalrymple,	Albion.
Lulu B. Fisher,	Albion.
Alta Ford,	Birmingham.
Mary E. Gee,	Carleton.
Minnie Sleight,	Lansing.
R. A. Wightman,	Albion.
Fanny White,	Albion.

GRADE I.

Thomas H. Hill,	Detroit.
Edith Jacobs,	Albion.
Mrs. G. W. Stormfels,	Albion.
Delia Sowle,	Dowagiac.

PIPE ORGAN.

Bertha Barrett,	Niles.
John M. Pierson,	Milford.

CABINET ORGAN.

Delia Sowle,	Dowagiac.
Fanny White,	Albion.
William L. V. White,	Olivet.
Carrie B. Sloan,	Albion.

FLUTE.

Wm. J. McLean,	Albion.

GUITAR.

Genevieve Moon,	Cedar Springs.
M. Maud Beard,	Albion.
Belle C. Smith,	Albion.

CELLO.

Ora Crittenden,	Albion.
Myrtie L. Eddy,	Lexington.

CORNET.

Joseph W. Snell,	Bayport.

VIOLIN.

Maud H. Covert,	Midland.

Roger Cotton,	Albion.
Arthur Corliss,	Albion.
Fanny Dessette,	Albion.
Harry Eastman,	Albion.
Henry N. Freeman,	Albion.
Willie Haight,	Albion.
Seth Hoyt,	Albion.
Mrs. M. S. Hitchcock,	Marshall.
Leon Jacobs,	Albion.
Charles Jeffries,	Albion.
Ota V. Kern,	Homer.
Mary Koons,	White Oak.
Cora Mays,	Albion.
Effie M. Manning,	Chesaning.
Charles G. Maywood,	Menominee.
Mrs. J. M. Moses,	Marshall.
John M. Pierson,	Milford.
May Pugsley,	Albion.
Anna M. Scotten,	Plymouth.
Mabel Smith,	Albion.
Clara Smith,	Albion.
Josie Smith,	Albion.
Frank W. Urch,	New Baltimore.
Jennie E. Wales,	Brooklyn, N. Y.
W. H. Whitcomb,	Marshall,
Ethel Wiselogel,	Pulaski.

VOICE.

Mary L. Barnes,	Albion.
Rena M. Babcock,	Albion.
Mark B. Beal,	Albion.
Carrie M. Bruce,	Albion.
Clarence Budd,	Milford.
Laura T. Bidwell,	Sacramento, Cal.
Sybil Bennett,	Sacramento, Cal.
Maud H. Covert,	Midland.
Ruth E. Coney,	Albion.

Charles Colby,	Albion.
Sarah J. Cross,	Albion.
Etta M. Carrier,	Lansing.
W. L. Dunbar,	Jackson.
Bertha E. Emmons,	Albion.
Clara L. Engle,	Hartford.
Belle Fiske,	Albion.
Lu L. Frary,	Fenton.
Jennie M. Galloway,	Dundee.
Mattie Ganiard,	Albion.
Anna Hull,	Albion.
LuElla Hartung,	Homer.
Thomas W. Hill,	Detroit.
Lizzie Helmer,	Parma.
Mary Koons,	White Oak.
Lulu D. Keller,	Albion.
Minnie O. Lewis,	Litchfield.
Hattie A. Lovejoy,	Albion.
Effie M. Manning,	Chesaning.
Nellie O. Miller,	Marshall.
Maggie C. McNaughton,	Luther.
Eva L. Marzolf,	Coto.
Genevieve Moon,	Cedar Springs.
M. Irene Niles,	Flushing.
Martha E. Niles,	Flushing.
Crissy Ott,	Marengo.
Clara Oberhaltzer,	Alanson.
Maud M. Phelps,	Whitehall.
Katherine Roode,	Albion.
Daisy A. Rogers,	Medina.
Maud M. Roberts,	Albion.
Mrs. Belle Sutherland,	Albion.
Minnie Sleight,	Lansing.
Mrs. Clara F. Springer,	Frontier.
Lee Shank,	Albion.
F. Maud Snell,	Bayport.

Daisy H. Snell,	Bayport.
Lilla G. Smart,	Flint.
Ned Sackett,	Albion.
Lola L. Todd,	San Francisco, Cal.
Cora E. Travis,	Hartford.
Hartley W. Taylor,	Albion.
Nellie S. Valentine,	Litchfield.
Cora Wetmore,	Concord.
Will H. Whitcomb,	Marshall.

STUDENTS IN THE SCHOOL OF PAINTING.

NAME.	RESIDENCE.
Flora Adgate,	Ionia.
Mrs. Ida Allen,	Albion.
Rena M. Babcock,	Albion.
Carrie M. Bruce,	Albion.
Gertrude M. Brown,	Angola, Ind.
Mrs. E. Y. Blackwood,	Northville.
Etta M. Carrier,	Lansing.
Sadie T. Dysinger,	Albion.
Edward A. Edmonds,	Bellevue.
L. Lou Frary,	Fenton.
Jennie M. Galloway,	Dundee.
Mary Garfield,	Albion.
Mrs. S. W. Hill,	Albion.
Mrs. D. Micheals,	Albion.
Belle Miller,	Litchfield.
M. Irene Niles,	Flushing.
George G. Newell,	Grand Rapids.
Anna Ott,	Albion.
Carrie B. Perkey,	Bronson.
Emma L. Rork,	Agnew.

Fannie Rumsey,	Leslie.
Cora M. Winkler,	East Saginaw.

STUDENTS IN COMMERCIAL DEPARTMENT.

NAME.	RESIDENCE.
Lottie Allen,	Albion.
John F. Arnold,	Albion.
Clifton G. Atherly,	South Haven.
Linda Barclay,	Rice Creek.
Charles J. Barker,	Albion.
John H. Bass,	Galesburg.
M. Maud Beard,	Albion.
Myrtie L. Bell,	Mason.
Allen D. Billinghurst,	Rice Creek.
Dresden E. Birtch,	West Branch.
John T. Blackwood,	Northville.
James Bolger,	Grand Rapids.
A. T. Boyd,	Albion.
C. Brownell,	Albion.
Grace J. Brundage,	Kalamazoo.
Clarence E. Budd,	Milford.
Minnie O. Carrier,	Albion.
Lyman Chandler,	East Aurora, N. Y.
Henry W. Collins,	Winona, Minn.
Stella M. Coney,	Albion.
John F. Critchett,	Monroe.
Nellie Dalrymple,	Albion.
Harry R. Dearing,	Albion
Frank E. Deming,	Homer.
Herbert A. Dewey,	Concord.
Lucinda Dickey,	Burlington.

Byron G. Doolittle,	Tekonsha.
Fred W. Durfee,	Plymouth.
William C. Eslow,	Albion.
Thomas Evans,	Vulcan.
John W. Fair,	Negaunee.
Frank A. Finch,	Albion.
Clarence A. Fiske,	Albion.
Alta C. Ford,	Birmingham.
O. Harry Gale,	Albion.
George A. Galliver,	Clare.
Ulysses S. Garnsey,	Mays.
Mary Gee,	Carlton.
Fred D. Goodenow,	Albion.
Harold T. Graves.	Spiritwood, Dak.
Emma Gregory,	Albion.
M. Belle Gutchess,	Albion.
Anna Higgins,	Springport.
Fred I. Herrick,	Albion.
Frank M. Hodge,	Mosherville.
Louise Houck,	Albion.
Fred G. Howard,	Albion.
Olive B. Hull,	Albion.
Elmer Jacobs,	Albion.
Lulu E. Jackson,	Climax.
Neil M. Kerr,	Vermontville.
Henry J. Klose,	North Muskegon.
Dwight W. Knickerbocker,	Albion.
Wm. A. Knowles,	Devereux.
Frank Laberteaux,	Albion.
Clara P. Laraway,	Ypsilanti.
Myra R. Maher,	Albion.
Effie M. Manning,	Chesaning.
Ernest M. Marsh,	Albion.
Sheridan F. Master,	Kalamazoo.
Orvill A. McInosh,	Davison.
Roy A. Miller,	Mason.

William C. Mitchell,	Morley.
Maud Moody,	Albion.
Charles H. McCool,	Churchill.
Alta Oldman,	Albion.
Charles A. Phelps,	Whitehall.
Jay F. Pool.	Agusta.
Pearl Pray,	Dowagiac.
Fisk M. Ray,	Jackson.
Willard Reed,	Albion.
Carlos W. Riddick,	Menominee.
Arthur W. Rockafellow,	Clare.
Herman Rogers,	Albion.
Lulu P. Rouse,	Homer.
Lucile B. Scott,	DeWitt.
Merritt D. Shepard,	Albion.
Belding Simmons,	Albion.
Fred. E. Smith,	Springport.
Joseph W. Snell,	Bayport.
Thomas C. Snell,	Bayport.
Effie G. Stanton,	Union City.
Delia Sowle,	Dowagiac.
Geo. W. Sweeney,	Albion.
Mame R. Taylor,	Tompkins.
David K. Titman,	Albion.
Frank W. Urch,	New Baltimore.
Kingsley Van Loo,	Big Rapids.
Maud Van Meter,	Jackson.
Inez O. Warner,	Albion.
Charles E. Warren,	Bancroft.
Homer G. Warren,	Flint.
Judd R. Waters,	Southfield.
Bertha Weeks,	Athens.
Wm. J. Wheeler,	St. Clair.
Will H. Whitcomb,	Marshall.
Leland M. White,	Lacota.

STUDENTS IN SCHOOL OF ORATORY.

NAME.	RESIDENCE.
Ida M. Ackley,	Dowagiac.
C. B. Allen,	Spring Arbor.
Nettie Allen,	Albion.
Irene Annis,	Albion.
John F. Arnold,	Albion.
Elmer E. Ball,	Albion.
L. A. Barnes,	El Dorado, Ark.
Wm. S. Barth,	Cincinnati.
Ira A. Beddow,	Southfield.
Bertha Bissell,	Albion.
Dresden E. Birtch,	Oscoda.
Carrie Bond,	Albion.
Carrie M. Bruce,	Albion.
Bessie Bruce,	Albion.
Blanche Bunday,	Albion.
W. E. Chamberlain,	Palmyra.
Mary E. Church,	Albion.
Harlon G. Clark,	Fowlerville.
W. P. Clark,	Mendon.
E. R. Cunningham,	Spring Arbor.
Menno H. Davis,	Albion.
Palmer M. Dearing,	Albion.
Frank E. Deming,	Homer.
Maud Delbridge,	Albion.
Nellie Dickey,	Albion.
Myrtle Eddy,	Lexington.
E. A. Edmonds,	Bellevue.
Walter I. Elmer,	Harrisville.
Florence Emerson,	South Haven.

J. B. Field,	Frontier.
Clarence A. Fiske,	Albion.
R. J. Floody,	Albion.
Lena Ford,	Albion.
H. E. Gibbs,	Mayfield.
Ella Goodyear,	Albion.
S. C. Griffin,	Albion.
H. A. Hayes,	Lansing.
Mrs. H. G. Hipp,	Almena.
Anna Higgins,	Springport.
Floyd Hoaglin,	Albion.
Will L. Holmes,	Eaton Rapids.
Clark S. Horton,	Albion.
Sidney Hull,	Albion.
Perry Hungerford,	Albion.
May B. Hunt,	Albion.
W. H. Hurlbut,	Albion.
Charles Jacobs,	Albion.
Fannie King,	Albion.
June E. Kirk,	Howell.
E. Watson Laing,	Ortonville.
Mary Lee,	Dexter.
Luther E. Lovejoy,	Albion.
Belle Marsh,	Albion.
Vernon Mayes,	Albion.
W. Scott Maywood,	Midland.
Maggie McNaughton,	Luther.
Mina Mudge,	Hastings.
H. W. Mumford,	Moscow.
Della Morgan,	Albion.
Glenn G. Newell,	Grand Rapids.
Martha Niles,	Flushing.
Frank Omans,	Greenland.
May A. Osborne,	Albion.
Hellen E. Osborne,	Albion.
Bert Peck,	Albion.

Clara Proctor,	Wallace, Ill.
Nettie Raub,	Albion.
Leslie Ray,	Ishpeming.
Meda Robbins,	Bowen's Mills.
Sybil Robinson,	Albion.
Arthur H. Rockafellow,	Clare.
Jacob G. Ruoff,	Philadelphia, Pa.
Clara Scott,	Vicksburg.
Anna M. Scotton,	Plymouth.
Edwy Shaw,	Eaton Rapids.
W. E. Shehan,	Somerset, N. Y.
Samuel Shultz,	Lansing.
Clare Smith,	Albion.
Mabel Smith,	Albion.
Lillian Smith,	Albion.
J. W. Staley,	Grayling.
Zella Starks,	Rice Creek.
Lola L. Todd,	Albion.
E. J. Townsend,	Jonesville.
Cora Travis,	Hartford.
Ira B. Travis,	Alma.
Susie Turner,	Evart.
W. H. B. Urch,	Jackson.
Nellie Valentine,	Litchfield.
William Watkins,	Clam Lake.
O. B. Warren,	St. Joseph.
H. G. Warren,	Flint.
Minnie Warren,	Albion.
Ira T. Weldon,	Mosherville.
William L. White,	Olivet.
Allen J. Wilder,	Tekonsha.
W. Wright,	Albion.

SUMMARY OF STUDENTS.

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	195	
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YEAR-BOOK

ALBION COLLEGE.

1889-90.

OUTLINE OF WORK 1890-91.

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YEAR BOOK

— OF —

ALBION COLLEGE

— FOR —

1890-91.

ALBION, MICH.

PUBLISHED BY ALBION COLLEGE.
1890.

ROGERS & WIERSEMA, PRINTERS, ALBION, MICH.

ORGANIZATION AND GOVERNMENT.

Albion College was chartered by an enactment of the Legislature of the State of Michigan in 1861. The school was first opened as a Seminary in 1843, in accordance with the provisions of a charter granted in 1835 and amended in 1839. The corner stone of the first building was laid in June, 1841. In 1849 the charter was amended so as to create a Female College. In 1861 full college powers were granted by the Legislature, so that for twenty-eight years it has been authorized to confer degrees without distinction of sex.

The general government of the institution is vested in a Board of Trustees, consisting of sixteen persons, six elected by the Detroit Conference of the Methodist Episcopal Church, six by the Michigan Conference, and three by the Society of Alumni. With the foregoing the President of the college is associated as a member *ex officio*. The State appoints annually a Board of Visitors and Examiners to inspect the workings of the college, which Board makes a Report to the Superintendent of Public Instruction. Boards of Visitors are also appointed by both the Detroit and Michigan Conferences, and also by the Society of Alumni. A Centenary Board has been organized for consultation and advice, but without official authority—consisting of fourteen persons appointed by the Michigan Conference and a like number appointed by the Detroit Conference, who, united with the Bishops of the church, are depended upon for many valuable suggestions for the most successful workings of the institution.

In the interim of meetings of the Board of Trustees a certain measure of power is vested in an Executive Committee consist-

ing of the officers of the Board, who are also constituted an Auditing Committee.

The immediate government of the college is in the hands of the President and Faculty. The enrollment of the student carries with it obligations to perform the work assigned, and to live up to the spirit of the institution in study and deportment. The purpose of college life should be to secure scholarship, to broaden and culture the mind, and to build up noble character.

LOCATION, BUILDINGS AND RESOURCES.

Location.—As with many other institutions of learning the college bears the name of the place where it is located. Albion is a thriving young city of 5,000 inhabitants, situated in Calhoun County near the central portion of the lower Peninsula of Michigan. It is one of the most beautiful towns in the state. The ground is rolling and picturesque, so that the view is delightful as gained from any point. It has several large manufacturing establishments which add much to the capital of the place. The locality is very healthy, depending partly on the topography of the place and partly on its unusually pure water. Its system of water works is supplied with water from artesian wells which reach down into the rocks 100 feet from the surface. The postal facilities are equal to those of the largest cities as there is free mail delivery. Albion is on the main line of the Michigan Central Railroad, 95 miles west of Detroit. The facilities of communication are all that could be desired. The Lansing Division of the Lake Shore and Michigan Southern crosses the Central at this place, providing direct connections with the main line of the Lake Shore on the South; and at the north with the Grand Rapids Division of the Michigan Central, the Detroit, Lansing and Northern, the Grand Trunk, and other lines. The country about Albion possesses much of scenic beauty, and comprises some of the finest farming lands in the state.

Campus.—The College Campus contains about twenty acres of ground, fifteen acres occupied by the buildings and lying on the west side of the buildings in the direction of the business

portion of the city. The balance of the ground is on the east side of the buildings, and is principally covered by a beautiful grove. The campus is by nature a charming part of the city, and has been much improved by art.

Buildings.—The buildings occupy the highest portion of the grounds, some forty feet above the level of the principal business street, and are reached by a gradual ascent. They are a little less than one half mile from the center of the city. There are three main buildings contiguous to each other, which are built of brick and stuccoed. The central one of these is 40x100 feet, and four stories high. It is devoted principally to the Conservatory of Music and the Department of Natural Science. One half of the second and third stories is occupied by the Museum, and the other half by the Chemical and Biological Laboratories. The other two buildings are each 46x80 feet. and three stories high. One of these is the Chapel and Library building, which also contains the Business Office and President's room. The other is divided up into Lecture and Recitation Rooms, containing in addition, the Halls of the two College Literary Societies and the Art Studio. On the campus, also, stands the Astronomical Observatory, which is admirably equipped. Just across the street from the campus on the North, is the President's House, which overlooks the campus on the West, and is one of the finest residences in the city.

Resources.—The college possesses about $230,000 of productive endowment, and $125,000 of unproductive endowment. Measures are being pushed to endow an Alumni Professorship, which are meeting with gratifying success. The funds for carrying forward the work of the institution are derived from the productive endowment and students' fees. In the College and Preparatory School no tuition is charged. An incidental fee of $5.00 a term is collected from each student. A statement of tuition charged for instruction in music, painting, commercial studies and oratory will be found on a later page

of the Year Book. The Matriculation fee on entering the college is $5, and the Graduation fee is $5. The Endowment Fund is in the hands of an Endowment Fund Board, which exists in pursuance of a special State Statute, said Board being authorized and required by law to pay over to the Trustees of the college only the interest of the fund they control. The college has, the past year, received one gift of $30,000, to endow the professorship of History. This donation was from Hon. Henry M. Loud, of Oscoda, Michigan.

MEMBERSHIP IN THE INSTITUTION.

Admission.—All candidates for admission will first call at the President's Room, No. 3, Chapel Building. ***They must present satisfactory testimonials of good character.*** If they come from other institutions they must bring a certificate of honorable dismissal. Before reporting for recitations the student must procure a Term Ticket from the Secretary of the Board of Trustees, showing that the term bills have been paid. ***The Faculty are not at liberty to give instruction previous to the presentation of such ticket.***

Regular ***examinations*** for admission are held at the beginning of the Fall Term, the ***day preceding the enrollment***; at the opening of the Winter Term and the Spring Term, ***on enrollment day.*** These examinations begin at 9 a. m. After examination the applicant will again report to the President.

Persons will be admitted only on examination, except the following:

(*1*) ***Persons graduating from schools which are recognized by the University of Michigan as preparing for college;***

(*2*) ***Persons graduating from schools approved by action of the Faculty of Albion College as satisfactorily preparing for college, or for some point in our Preparatory course.***

(*3*) ***Persons bringing satisfactory certificates from schools which,***

though no formal action has been taken to put them in the class of approved schools, are yet known to be doing good work. On these certificates credit will be given, provided the student is earnest and successful in his studies here, as soon as the same is satisfactorily determined. We advise all students from graded schools to bring certificates of studies pursued and standing in the same, and, if there is satisfactory evidence of thorough scholarship, credit will be given.

Enrollment.—The opening day of each term is Enrollment Day. As a special list of students is prepared for each term, all students must ***report for enrollment on the first day of each term.*** For new students this is the act by which they become members of the Institution. The tickets issued contain a list of the studies to be pursued, and also a statement of dues. All individuals intending to enter any of the departments of the College should report on the first day if possible. If this cannot be done, they will be received at a later date, if qualified to enter the classes. Persons who are already students are also *required* to take out their term tickets on Enrollment day, so as to be able, on the following day, to prosecute their work with the regular classes. The closing of a term does not terminate the student's connection with the institution; *and unless he graduates or is excused by the President he must be present on the first day of the succeeding term.* Absence on that day is as much a violation of the rules and order of the school, as though it occurred in the middle of the term.

Passing.—The passing of students in their studies will depend on the work done on *each day* of the term, with special tests applied at regular and irregular times and at close of each term. The *daily work* must be satisfactory and the attendance uniform to entitle the student to the record of passing on the same.

Students who fail to pass at the close of the term must present themselves for examination at the opening of the next term.

Absence.—Students who are not in their places at the opening of the term must, if minors, *present a valid written excuse* from their parents or guardians; and if not minors, must give *satisfactory excuse* for such delay.

DEPARTMENTS OF THE INSTITUTION.

College of Liberal Arts. Providing four courses of study, requiring the same time—four years—for completion. Conferring four first degrees, B. A., B. Ph., B. S., and B. L.

Conservatory of Music. Providing a four years' Musical Course. A Diploma granted on graduation.

Providing a six years' Course. Degree of B. Mus. conferred.

School of Painting. Providing a four years' Painting Course, the student receiving a Diploma on graduation.

Providing a six years' Course. Degree of B. P. conferred.

Preparatory School. This school prepares for each of the four College Courses, and covers a period of four years of instruction.

Academic Department. This department is arranged for students who do not desire to prepare for college, or to classify in the College or Preparatory School.

Commercial Department. This department is arranged on a plan to furnish considerable literary work with Commercial studies, so as to send out intelligent business men. The studies may be pursued by themselves, or in connection with literary branches.

Department of Oratory. This department has recently been created, and a full course provided for such as desire to make oratory a specialty. Students in all the departments find it profitable to give some attention to this line of work.

COLLEGE OF LIBERAL ARTS.

REQUIREMENTS FOR ADMISSION.

Candidates ***for admission*** to the Freshman Class must be at least sixteen years old, must pass examination in the Primary English branches, and in all the studies of the Preparatory Course, or studies equivalent thereto, as taught in the High Schools, unless admitted on diploma or certificate from other Schools under conditions elsewhere stated.

Candidates for ***advanced standing*** must, in addition to the foregoing, pass examination on advanced studies for which credit is sought, unless coming from other colleges whose work is accepted by us. Persons not candidates for a degree will be admitted to the regular classes, *but will be charged the matriculation fee, when their scholarship would entitle them to admission into the Freshman Class.*

KIND AND RELATION OF COLLEGE WORK.

The curriculum of college studies of half a century ago has undergone, in many institutions, very extensive modifications; and those schools that adhere rigidly to the past are suffering in comparison with the class referred to. The ancient regime restricted the lines of study almost wholly to Latin, Greek and Mathematics, with something of Mental and Moral Philosophy. In the truly modern college a good deal of attention is given to the modern languages, to the sciences, to history, and to studies which are purely English. It may be remarked that there is much unreasonable prejudice against the ***study of the languages.*** While they should not monopolize the atten-

tion of the student to the exclusion of everything else, they rightfully may claim considerable of his time if the fullest culture is sought for. No other studies are more practical. In every department of life we are constantly employing language. Not only is this true of the clergyman, the lawyer, the statesman and the journalist, but it is true of every private citizen who has the least to do with public affairs. The clerk in the store, even, employs language more than he does arithmetic. Language is the repository and vehicle of thought. As listeners, as well as speakers, the significance of words and the content of sentences employed depend on the depth and comprehensiveness of our knowledge of language. Indeed, we think through language, and the reach of thought is limited by the scope of the language as understood by us. As man is a being who uses language more than anything else—employing it in business, in social life, in intellectual pursuits, in his relation with others, and in the subjective development of mental power—the more profoundly it is studied and the more meaning we are able to put into it, the grander and more practical will life become. In the foregoing considerations nothing has been said of the special forms of mental culture promoted by the study of language. The benefit thus obtained is justly regarded as exceedingly valuable, and it is generally conceded that it cannot, in every respect, be gained from any other line of study.

The ***partiality for mathematics*** grows out of two forms of service rendered by it; one of these, as the instrument of business and for the development of science; the other, as helping to generate a habit of accuracy of thought and power of attention. Mathematics, therefore will always be given a large place in the college curriculum.

The ***growing interest in science*** has compelled colleges to give it a larger place in the four years of study than it formerly occupied. In some institutions the traditional aristocracy and exclusiveness of the past have not been sufficiently dissipated to allow the study of nature its proper share of time. It

should be borne in mind that he who reads intelligently the book of nature is not only in communion with truth under conditions very favorable to the inspiration of thought, but a habit of close observation is acquired which is exceedingly fruitful of scholarly attainments. One of the most important acquisitions is the spirit of intelligent-searching after truth.

It is only within a few years that the ***study of history*** has occupied to any extent the attention of our American colleges. That the lessons we may learn from history are of great value to us is indisputable. And unless colleges choose to incur the odium of deliberately rejecting that which is universally recognized as highly important, history studies should have a leading place in these institutions of learning.

Our ***mother tongue*** has usually received but little attention in the colleges of this country. The ancient languages were universally conceded to be of vital importance, while the English was pushed aside only as it came into notice through the Latin and Greek. It is time that the folly of this was clearly perceived, and a radical revolution effected. While all languages should be considered a unit, and should be studied in their relations one to the other, the English speaking student should have his eye always on the English, and make all other linguistic lines converge towards his mother tongue.

There is another broad field for colleges to occupy in which they come closer to the daily life, and hear the heart-throbbings of the public. We speak of the ***problems of Political Science, Social Science and Social Reforms.*** These problems should receive special attention if the college would do for the public all the work which may reasonably be demanded of it. And problems of this nature should be pursued not simply by the perusal of a text book, or by listening to formal lectures, but by exhaustive research, the studying of the questions involved from all sides. Thus will the knowledge gained be more exhaustive, the opinions formed more independent, while the most successful method of looking up the data for intelligent judgment on practical questions will be learned. In nearly

every line of study the college ought to put the pupil in the way of going outside the teachings of the text book, and making broad and extensive researches.

It is evident that any college fails to achieve the best and most reliable results unless it finds ***God at the foundation of all truth,*** unless it carries the student into the sphere of ultimate divine causation, as a reason for, and explanation of, all science and conditioned being. Intellectually the work is incomplete, the scholarship rests on the sand, unless God is the support of the great temple of truth that is reared. The race can never be strong without a God, and colleges which do not aim to bring the Unconditioned Absolute Will into the problem of nature tolerate weakness instead of generating strength.

There are several facts to which we call attention.

We have arranged four distinct and radically unlike courses of study: the Classical, the Latin Scientific, the Scientific and the Letters Course. ***In the Classical,*** the Latin and the Greek hold a prominent place. In all colleges, both in Europe and America, until quite recently, there was no other course. And at present, many scholars maintain that more culture is gained from this line of work than from any substitute that has been offered.

In the Latin Scientific the Greek is replaced by other studies, but *requiring the same amount of time for their mastery.* These studies are principally—though not wholly—in science and mathematics. *But students who desire to make a specialty of Latin or some of the modern languages, can substitute further work in these languages for such branches in science or mathematics as have been introduced into this course in place of the Greek found in the Classical Course.* This will make the course pre-eminently linguistic, the same as the Classical Course. The degree conferred will be Bachelor of Philosophy.

In the scientific course there is no ancient language in the college curriculum, and *but one year of required Latin in the Preparatory, with also another year of either Latin or Greek.* But

the amount of Mathematics, Science and History, is much increased.

The college has established ***a Letters Course*** in which no Latin or Greek is required, but special attention is given to the study of the English Language, including the Anglo-Saxon.

The English Course of the High Schools will, in the direction of studies pursued ordinarily afford a proper preparation for this line of work. Provision is made for the introduction of a *certain amount of study in Music, Fine Arts, Oratory or Commercial Branches* in case the student desires to elect the same. The exact character of this course will be explained later on in the Year Book.

The degree the student will receive on graduation is determined by the course he has pursued up to the Junior Year, *except in the course that prepares for the degree of B. L.*

In the Classical, Latin Scientific, and Scientific courses the Junior and Senior Years are devoted wholly to elective work, except Psychology, Logic and one term of Chemistry, which are required of all students who are candidates for a degree. Several studies in the Sophomore year have recently been made elective.

The courses of study will be found tabulated elsewhere in this volume; also a somewhat full exhibit of the work pursued. It will be seen by a study of the order and scope of the courses adopted, that the college is keenly alive to the importance of that which is new and valuable in the modern life of institutions of learning. It has done much to create a progressive spirit, and effect a reformation in the order and purpose of college work.

DEGREES.

At the completion of the under-graduate courses of study the first or Bachelor's degree is conferred as follows:

The degree of Bachelor of Arts, (A. B.) is conferred on all who complete the Classical Course.

The degree of Bachelor of Philosophy, (Ph. B.) is conferred on all who complete the Latin Scientific Course.

The degree of Bachelor of Science, (B. S.) is conferred on all who complete the Scientific Course.

The degree of Bachelor of Letters, (B. L.) is conferred on all who complete the Letters Course.

None of the above degrees will be conferred except upon satisfactory examination, and payment of the regular fee of five dollars; and the *name of no student will be presented by the Faculty to the Board of Trustees for a degree till he has submitted to the Faculty the receipt of the Secretary for the payment of all dues, including the fee for diploma.*

No one will be admitted as a candidate for any of the above degrees later than the first term of the Senior year.

The degree of A. M., Ph. M., or M. S., unlike that of LL. D. or D. D., is, in theory, not honorary, but a voucher for the recipient's actual and ascertained progress in some special line of post-graduate work; while in practice these degrees have been almost universally conferred by American colleges without any reference to the preparation or fitness of the candidate. During the last ten or twelve years, however, there has been a general movement toward the correction of this evil; in harmony with which movement, the Board, in 1879, passed a series of resolutions which furnish the bases of the following regulations:

1. Graduates of ***any year previous to 1880,*** of three or more years' standing, who have been engaged for three years in literary or scientific pursuits, will be recommended for the Master's degree, upon written application and the payment of the regular fee of five dollars.

2. Any person graduating ***subsequently to the year 1879,*** may obtain the Master's degree by either of two methods, viz.:

1. ***One year of exclusive study in Albion,*** or

2. ***A three years' course of reading pursued in connection with other occupations.***

3. ***A candidate electing either of these three methods will be required,*** (1) ***at the beginning of his course*** to elect, with the

advice and approval of the Faculty, one principal and two subordinate lines of study; (2) ***at least one month*** before recommendation for the degree, to pass a satisfactory examination upon such work in each of the three lines as may be specified by the Faculty; and (3,) ***at least two months*** before recommendation for the degree to present a thesis upon some topic approved by the Faculty in his principal line of work.

4. In the case of one-year candidates, ***residence in any college town*** or other place furnishing facilities for special study, such as libraries, museums, etc., will be accepted in lieu of actual residence in Albion; provided always, that all other conditions herein stated are rigidly complied with.

5. ***In no case*** will the candidate be recommended for the degree before he shall have paid in the regular fee of five dollars.*

The plan followed by the student will embrace ***one principal line of study,*** and ***two subordinate lines.*** This work can be done in any of the departments represented in college courses, or ordinary post-graduate lines of study, embracing also the leading questions of the day.

A statement of the condition on which the degrees of Bachelor of Music and Bachelor of Painting are conferred will be found in connection with the courses of study in the Conservatory of Music and the School of Painting.

COURSES OF STUDY.

The courses of study are put in tabulated form so that the student may see at a glance, the time of the year in which instruction will be given in each branch, and the amount of time devoted to the same. The order prescribed is not followed

*NOTE.—Any person desiring to become a candidate for either of these degrees will at once communicate with the Secretary of the Faculty, stating the line he would prefer to work in, his present occupation, his facilities in the matter of libraries, etc., etc., when the Faculty will determine, as nearly as possible in accordance with the applicant's inclinations, the studies to be pursued, prescribe the books to be used, etc., etc. As the work will be entirely elective, no specific course can be laid down; but in general it may be said that the candidate will be expected to work in the subordinate lines as a general student; in the principal line as a specialist.

with absolute precision, but may be varied to some extent, from time to time, at the discretion of the Faculty. If not followed literally an equivalent will be substituted.

Some very important changes have recently been made in the curriculum of studies: The system of college work is made to conform to the ***most advanced views*** of leading teachers, and is brought into harmony with the natural and necessary order of mental growth—both individual development and race civilization. A few words only are needed in this place.

By the time the student reaches the ***beginning of the Junior year*** he is regarded as prepared for ***more independent work*** than he could generally carry forward in the earlier part of his course. Henceforth his individual preferences are more largely consulted. It will be seen that lines of study and investigation are provided from which he may select the branches to be pursued. We invite attention to the following points:

1. ***A few studies*** are elective previous to the Junior year.

2. ***All studies in the Junior and Senior years*** are elective with the exception of Psychology, Logic and one term of Chemistry.

3. Students in these years must ***select from at least two lines.***

4. It is recommended that they select from ***three lines***—they must ***not select from more than five lines.*** These selections will be made under the advice of the Faculty, so that consistency of work may be secured.

5. It is the judgment of the Faculty that the best results are gained when the student has done very thorough work in all the studies previous to the Junior Year—not slighting any—but does ***not attempt to take up all the lines*** of elective work in the last two years of his course. There is benefit from specialization, and by the time the student reaches the Junior Year, ***the attention should be concentrated on a comparatively small***

number of subjects. But in order to do special and research work profitably it is necessary that thorough discipline of mind shall have been gained.

6. The student will be required to have ***fifteen hours of recitation*** each week, or what is equivalent thereto.

7. A large amount of ***research work*** will be prosecuted during the Junior and Senior years.

8. The Degree conferred at graduation will be determined by the course pursued up to the close of the Sophomore year, in all courses ***except the Letters.*** If, previous to that time the student has taken the studies of the Classical Course, his degree will be "Bachelor of Arts;" if Latin Scientific, it will be "Bachelor of Philosophy;" if Scientific, it will be "Bachelor of Science." The Junior and Senior studies are largely of a ***university character,*** preparing the student for independent investigation when, from graduation, he must carry forward his studies without the presence and guidance of a living teacher. The lines of study provided have been made so broad and varied that the ***candidate for any of the professions,*** as well as the business man, can obtain here the scholarship which will best fit him for his chosen and anticipated mode of life.

It will be seen that the order in which some of the branches of study are pursued is not quite the same as that adopted in many institutions, but no confusion grows out of this arrargement, as all the studies are taught in contiguous years. ***Those who have pursued Latin and Greek before any of the modern languages find no inconvenience in taking up these modern languages at any point in their course.*** Whatever may have been the order of study in the High Schools, the classification will depend on the ***amount and value of the work done,*** not on the fact of ***pursuing the precise branches laid down in our Preparatory School.***

FRESHMAN YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
Latin.....4	Latin.....4	Modern English History 4	* French.....3
Greek.....5	Algebra.....5	Algebra.....5	
French.....4	French.....4	French.....4	
German.....3	German.....3	German.....3	Elective.....12
Latin.....4	Latin.....4	Microscopy.....3	* French.....4
Greek.....4	American Literature.....3	American Literature.....3	Astronomy.....3
French.....4	French.....4	French.....4	American Literature.....3
Astronomy.....3	Astronomy.....3	Astronomy.....3	
		Elective.....2	Elective.....5
Latin.....5	Latin.....5	Advanced Botany..3	* French.....3
Greek.....5	Inv. Geometry....4	Inv. Geometry.....4	Astronomy.....3
French.....3	French.....3	French.....3	
Astronomy.....3	Astronomy.....3	Astronomy.....3	
		Elective.....2	Elective.....9

SOPHOMORE YEAR.

Latin.....4	Latin.....4	Biology.....3	
Greek.....5	Mod.Cont.History 3	Mod.Cont.History..3	
Trigonometry.....5	Trigonometry....5	Trigonometry.....5	
German.....2	German.....2	German.....2	
		Elective.....2	Elective.....15
Latin.....4	Latin.....4	Physics.....3	History of Civilization.....3
Greek.....5	General Geometry5	General Geometry.5	
History of Civilization.....3	History of Civilization or Physics 3	History of Civilization.....3	
French.....3	French.....3	French.....3	Elective.....12
Latin.....3	Latin.....3	Physics.....3	History of Civilization.....2
Greek.....4	Calculus.....5	Calculus.....5	
History of Civilization.....2	History of Civilization or Physics..2	History of Civiliza tion.....2	
German.....2	German.....2	German.....2	
Elective.....4	Elective.....3	Elective.....3	Elective.....13

*** It has been decided to make the Letters Course more flexible than heretofore in order to provide a course in which the student may more perfectly adapt the work to his peculiar taste and temperament. The required work in English, Mathematics, Science, and History consists of the studies in the table which are not starred. In addition the candidate for this degree must take the courses in General Psychology and General Chemistry; also three years of Language, of which at least one year must be French or German. Of the Electives about seventy hours must be taken from the Literary Department. The ninety hours remaining may all be elected from the Literary Department, or in part from the Commercial Department with a maximum limit of forty hours, or from the Art Department with a maximum limit of forty-five hours, or from the Conservatory of Music with a maximum limit of sixty hours, or from Elocution with a maximum limit of eighteen hours, or from any combination of the above.**

JUNIOR AND SENIOR YEARS.

This table contains, in addition, all the Elective studies of the preceding years, except those mentioned in the foot-note of the Letters Course on page 19. Not all the courses laid down in this table are usually given each year. Whatever shall be taught is determined principally by the demand, though other circumstances enter into the case.

PHILOSOPHY.	THEOLOGY	LATIN.	GREEK.	NAT'L SCIENCE.
Psychology....5 History of Philosophy.....3 Pedagogy.....2	Old Testament History.....3 Greek Testament 2 Hebrew 2 Res. Compar. Religions 2	Cicero— DeSenectute DeAmicitia 2 Horace—Odes 2 Composition..1 Cicero— Tusculan Disputations 3 Lucretius 2	Epic Poetry...3 Metres 1 Drama 3 Metres 2 Literature 1	GeneralChemistry 5 General Biology.....3 Sanitary Science 3 Geology 5 Meterology ...3 OrganicChem. 5
Psychology....3 History of Philosophy.....5 Theism 5	New Testament History 3 Greek Testament 2 Homiletics ...2 Hebrew 2 Res. Compar. Religions.....2	Latin Lit..... 2 Horace-Satires and Epistles 2 Composition..1 Plautus 3 Pliny—Epistles Cicero-Epistles 2	Epic Poetry .3 Drama 2 Literature 3	Qualitative Chemistry ..5 Microscopy...3 Quantitative Chemistry ..3
Moral Science.5 Logic 4	Church Hist...4 Evidences of Christianity 4 Greek Testament.....2 Hebrew 2 Res. Comp Religions ...2	Livy 3 Terence 2 Tacitus 2 Seneca... 2 Christian Hymns 1	Lyric Poetry..2 Metres 1 Plato.....4 Literature.....2	Mineralogy...3 Qualitative Chemistry..3 Vegetable Biology 2

JUNIOR AND SENIOR YEARS—CONTINUED.

HISTORY, POLITICS AND ECONOMICS.	ENGLISH.	MATHEMATICS PURE AND APPLIED.	MODERN LANGUAGES.
Modern Continental History.....3 Political Economy 3 Political Science..2 U.S.Constitutional History 2 Research Class in Politics and Economics 2	Anglo-Saxon 3 History of English Literature 3 Science of Rhetoric 4 EnglishLit.—Study of Masterpieces 3	Calculus.....3 Physics 3 Astronomy 3 Quaternions.....3	French III and VI as described in the outline of work. German IV and VI as described in the outline of work. Italian Spanish Volapuk 1
Modern Continental History.....3 His.of Civilization 3 Political Economy3 Political Science..3 U.S.Con'n'l His. 3 Research Class in Politics and Economics 2	Early English....3 Anglo-Saxon 3 History of English Literature 3 Trench on Words 2 American Literature — Study of Masterpieces ...3	Calculus.....3 Physics 3 Astronomy 3	French IV and VI as described in the outline of work. German IV V and VI as described in the outline of work. Italian Spanish Volapuk 1
History of Civilization 3 International Law 4 Comparative Constitutional Law..4 Research Class in Questions of the Day 2	Early English.. .3 Anglo-Saxon 3 Trench on Words 3 English Literature —Study of Masterpieces.....2 Shakespeare... ..2	Physics 3 Modern H. Algebra including Determinants 2 Astronomy 3 Surveying 3	French V and VII as described in the outline of work. German IV and V as described in the outline of work. Italian Spanish

PREPARATORY SCHOOL.

FIRST YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
Arithmetic 5	Arithmetic 5	Arithmetic 5	Arithmetic 5
Civil Government 5	Civil Government 5	Civil Government 5	Civil Government..5
English Grammar 5	English Grammar 5	English Grammar 5	English Grammar..5
Arithmetic 5	Arithmetic 5	Arithmetic 5	Arithmetic 5
Physical and Histor-	Physical and Hist.	Physical and Hist.	Physical and Hist.
ical Geography....5	Geography ... 5	Geography 5	Geography 5
English Grammar 5	English Grammar 5	English Grammar 5	English Grammar..5
Arithmetic 5	Arithmetic 5	Arithmetic 5	Arithmetic 5
English Analysis	English Analysis	English Analysis	English Analysis
and Composition..5	and Composition.5	and Composition..5	and Composition..5
English History .5	English History..5	English History. 5	English History... .5

SECOND YEAR.

German 5	German 5	German 5	* German 5
Algebra 5	Algebra 5	Algebra 5	Algebra 5
Rhetoric.....5	Rhetoric 5	Rhetoric 5	Rhetoric 5
German 5	German 5	German 5	* German 5
Algebra 5	Algebra 5	Algebra 5	Algebra..... 5
Physics 5	Physics.....5	Physics 5	Physics 5
German 5	German 5	German 5	* German 5
Algebra.....5	Algebra 5	Algebra 5	Algebra..... 5
Physics 5	Physics.....5	Physics.....5	Physics 5

THIRD YEAR.

Latin 5	Latin 5	Latin 5	* Latin 5
Modern History....5	Modern History...5	Modern History...5	Modern History ..5
Algebra.....5	Algebra 5	Algebra 5	Algebra 5
Latin 5	Latin 5	Latin 5	* Latin 5
German.....3	German 3	German 3	* German.....3
Geometry 4	Geometry.....4	Geometry 4	Geometry 4
Modern History....4	Modern History .4	Modern History. 4	Modern History... 4
Latin 5	Latin 5	Latin 5	* Latin 5
Botany 5	Botany 5	Botany 5	Botany.....5
Geometry 5	Geometry 5	Geometry 5	Geometry.. 5

FOURTH YEAR.

Latin 4	Latin 4	Latin 4	English Literature 4
Greek 5	English Literature 4	English Literature 4	Roman History....3
Roman History....3	Roman History....3	Roman History....3	
German 3	German 3	German 3	Elective 8
Latin 4	Latin 4	Latin 4	Mechanical Dr'w'g 4
Greek 5	Mechanical Dr'w'g4	Mechanical Dr'w'g4	Geometry 4
Geometry 4	Geometry 4	Geometry 4	
Physiology.....4	Physiology 4	Physiology 4	Elective 7
Latin 4	Latin.....4	Latin 4	Zoology 4
Greek 5	German 3	German 3	Ancient History ...3
Zoology 4	Zoology 4	Zoology 4	
Ancient History...3	Ancient History...3	Ancient History 3	Elective 8

ANALYSIS OF THE COURSES OF STUDY.

An examination of the courses of study which make up the work of the Preparatory School will enable the reader to determine the following points:

1. The extent of study to prepare for college is the same in all the courses. The degree to be gained is not thus lowered by being granted after a short course in any line of work, as in some institutions of learning.

2. The first year is given purely to English studies. It is believed this will be for the best interest of students who as yet have reached no higher grade of scholarship. The gaining, in connection with other branches, a thorough knowledge of English Grammar will lay a good foundation for the study of the languages which immediately follows.

3. We begin linguistic studies with the German. Former Year Books contain in full reasons for taking up modern before ancient languages, and it is probably not necessary to repeat them here. It is enough to say that the student finds fewer difficulties in mastering a modern language than an ancient language, and hence as the more simple it should precede the more complex. Also modern languages open access to the valuable living literature of the learned nations of Europe, and it is important that the student possess the key to this storehouse of learning early in his course.

4. The study of the French has been postponed till the Freshman Year, because the graduates of High Schools, generally, have not had an opportunity of pursuing this branch in making their preparation for college. We should give it an earlier place, were it not that we desire to accommodate the pupils who come to us from schools in this and other states.

5. Placing German in the order of study before Latin allows us only two years for the latter study in the Preparatory School. This does not reduce the amount of Latin provided, but transfers it, to some extent, to the college years. In the Classical and Latin Scientific courses, Latin is required through the Freshman

and Sophmore Years, and is made elective through the Junior and Senior Years, so that there is provision for Latin through the entire four college years. A corresponding change is made with the Greek.

6. The fact that in some cases ***the order of work*** in our Preparatory School is not the same as in many of the High Schools, does not introduce any disorder into our movements, ***because back work can be taken up with classes in the Institution pursuing such branches.***

7. Classification of students coming from High Schools or Academies, will not depend on the fact of having pursued just the branches laid down in our preparatory courses, but ***credit will be given for equivalents*** so far as they harmonize with the lines of movement.

8. The Letters Course is provided for young people who desire to devote as much time to study as is necessary to complete any of the ordinary college courses, but being specially interested in the science of music, other lines of the Fine Arts, etc., would like to gain the form of culture to be acquired in such studies. A limited election of these branches is therefore allowed for the degree of Bachelor of Letters.

REQUIREMENTS FOR ADMISSION.

Candidates for admission into the Preparatory School must be at least thirteen years of age, and ***have a knowledge of the primary branches, including Descriptive Geography, Mental Arithmetic, Written Arithmetic through Fractions, and some knowledge of English Grammar.*** Starting with this preparation, those who are studious will be able to complete the course prescribed in four years, so as at that time to enter the Freshman Class. For ***advanced standing*** the age should be correspondingly greater, and examination must be passed on that part of the course for which credit is given, or on work equivalent thereto, unless certificates are brought for the same from accredited schools. The object of this school is to provide young people

who desire to fit themselves for college with the most complete advantages for such preparation. It is not simply an academic department, but is conducted in the interest of those who intend to pursue studies required for admission into college. We call special attention to the order of the work here provided as in an eminent degree answering the purpose of the school.

HIGH SCHOOLS AS PREPARATORY SCHOOLS.

The ***Public Schools are the most valuable provision*** for the education of the mass of the people found anywhere in this country. They reach the largest number of persons, supply the foundation of our civilization, and create conditions essential to the existence of free government. But ***colleges*** are doing a work of great importance. In some respects it must be quite unlike the work of even our best High Schools. It should be of a different grade, not only because the branches of study are of a higher order, but because of the greater maturity of mind of the pupil, the collection of more abundant means of illustration and research, and of the special methods it is possible to employ, contributing to more independent and thorough scholarship. The recitation, simply as a recitation, becomes a less important factor, gradually giving place, more and more, to self-reliant personal research in the determination of truth, under the guidance, or with the advice, of men who labor in special lines of investigation.

For a few years past the conviction has been growing, that ***colleges should offer special advantages,*** not only to young persons who expect to enter upon a professional career, but to all who have high aims in life. The fact has come to be appreciated that, for the development of intelligent manhood, for the best discharge of the duties of citizenship, for meeting the demands of the highest forms of the arts, and for keeping pace with the advancing civilization of the age, the large class of persons who will carry forward the business and industries of

the world would derive incalculable benefits from liberal culture.

But how can ambitious young men and women, who have formed high ideals of excellence, ***prepare for college?*** This preparation must, in most cases, be obtained in the High Schools, if gained at all. And while these schools, perhaps, may retain their pupils under instruction a sufficient length of time to prepare them for college, provided the course of study has been adapted thereto, there are insuperable barriers in the way. We recognize the fact that the ***High School exists to meet local wants,*** and does its work best when it most fully meets such wants. ***It has been held*** that, for the pupil to fit himself for college, it is necessary to engage in special lines of work such as are not found in most of our High Schools, and which could not well be provided without sacrificing local interests. But for the last three or four years the Faculty of Albion College have been studying this question in the light of all the information they could obtain, with a careful scrutiny of the principles involved, and have reached the conclusion that ***the courses of study best adapted to the purposes of the High School, may, and ought to be, accepted in preparation for college.*** We shall therefore try the experiment, which we believe will be successful of taking the student at the point up to which the best schools have educated him, ***giving him credit for all his work.*** This will practically throw college doors open to a large number of young persons, who on the old system would be deprived of the advantages provided in the higher institutions of learning. By this plan we shall ***not admit at any lower point of scholarship,*** but shall make the lines of study in preparation more flexible, holding that it is training and culture that are needed, which can be secured through superiority and adequate range of work, rather than by adherence to the old method of following always a special line of studies. We are convinced that a large number of schools of twelve grades—in the quality and extent of work done—may be trusted to prepare for the Freshman year in college; and that many of the schools of eleven grades may be relied upon to fit the pupil for the Fourth

or highest Preparatory year. We therefore make the following

Announcement.

1. Under conditions hereinafter mentioned, ***we shall accept without examination of students***, the work of the best High Schools of twelve grades, as preparation for College. ***We shall accept the completed work of the English Course*** as sufficient to admit the student into the Freshman Class in our Letters Course, on graduation from which he will receive the degree of Bachelor of Letters. If the course he has pursued be ***more strictly Scientific,*** he will, in the same way, be ***admitted into our Scientific Course,*** for which the degree on graduation is Bachelor of Science. If the course studied was largely made up of Latin, or Latin and Greek, he will, in like manner, ***be admitted into College in the Latin Scientific, or Classical Course,*** which will prepare him, in the former course, for the degree of Bachelor of Philosophy, and in the latter for Bachelor of Arts. Under the same conditions we shall admit into our ***Fourth Preparatory year*** from schools of eleven grades which are known to be doing satisfactory work.

2. The regulations contained in the preceeding paragraph apply to ***all schools which***

(a) Have been ***visited by the Faculty of the University of Michigan*** and approved by them ; or

(b) Have been ***visited by us and approved;*** or

(c) Have, by some other ***satisfactory method, supplied us with the evidence*** that, in extent, quality and completeness of work, the pupil has gained the scholarship and culture required to enter our classes. ***If the school has received formal approval according to*** (a) ***or*** (b) ***of this paragraph, we shall admit students directly on their diplomas and certificates.*** But if the

school is not included in one of these classes, and it is desired to enter into relations with Albion College, the course or courses of study must be transmitted to us with such statements in regard to the work done as are considered important. This will be preliminary to an adjustment of relations. We will, at an early day, give information as to our judgment of the curriculum followed in such school.

3. To be ***admitted into the College without examination,*** the student, if coming from a school included in one of the classes of 2, (a) or (b), will ***present his diploma or certificate,*** together with ***a letter from the Superintendent or Principal of the School informing us that his work has been thoroughly done, that his habits are studious, and that he possesses capacity for genuine scholarship.*** On the strength of this he will be ***immediately classified.*** If he comes from a school embraced in class 2 (c) he must ***present his diploma or school certificate, with a letter from the Superintendent or Principal*** of the school certifying to the earnestness and success of his work. He will then be ***classified provisionally*** according to the tenor of these documents, which classification will be ***made permanent after a few weeks' successful study in the institution.***

ACADEMIC DEPARTMENT.

This department is provided for students ***who do not wish to classify*** in the Preparatory School or College.

It accommodates two classes of persons:

(1) Those who do not propose to pursue an extended course, intending to spend only a short time in the Institution.

(2) Students who desire to make a specialty of certain lines of work, such as Mathematics or Science, or History, etc.

There are the same requirements for admission as to age and scholarship as in the Preparatory School. ***Any of the classes of the Institution*** are open to academic students without reference

to the tabulated order, in view of the fact that they are not candidates for a degree, provided the scholarship already gained will enable them to carry forward the work successfully. No tuition is charged, but in addition to the regular incidental fee the ***matriculation fee of five dollars*** must be paid if college studies are pursued. We consider it best for the student to take up the work in the order of our tabulated courses, and ***all the work thus provided,*** but as circumstances sometimes exist to prevent this we make provision, as above stated, for limited lines of study.

BRIEF OUTLINE OF WORK PROVIDED FOR IN THE TABULATED COURSES OF STUDY.

MODERN LANGUAGES.

FRENCH.

I. The principal aim of this course will be the acquisition of a knowledge of the essentials of French grammar, and of an ability to translate at sight ordinary French prose. Books to be used: Bôcher's Reader; Erckmann-Chatrian, *Le Concrit de 1813;* George Sand, *Francois le Champi*, or their equivalents—Three Terms. The grammar part will be taught by talks.

II. The object of this course is to learn to read French without translating it into English. The work in class will be carried on in French as much as possible. Books to be used: Augier et Sandeau, *Le Gendre de M. Poirier;* Alexander Dumas, *Le Capitaine Pamphile;* George Sand, *La Petite Fadette.* Fall Term, 3 hours.

III. In this course students will read Molière's *Le Misanthrope* and *Le Tartuffe* in class, and they will be required also to bring into class written resumes of other plays of Molière. Fall Term, 2 hours.

IV. Racine's *Athalie* and *Bérénice* will be read and commented upon in class, and a few plays will be read as home-reading. Winter Term, 2 hours.

V. Some of Corneille's plays will be read and explained in

French. A few of La Fountaines fables will be committed to memory. During the term attention will be given to the historical part of French garmmar. Spring Term, 2 hours.

VI. In this course, which extends over two terms, the French literature of the 17th century will be discussed. Some of the works of the French writers of this period will be read at home. Fall Term, 2 hours. Winter Term, 2 hours.

VII. The spring term will be devoted to studying historical French grammar, based on *Brachet's Grammaire Historique de la langue francaise.* Spring Term, 2 hours.

GERMAN.

I. The elementary course will aim at reading ordinary German prose at sight, and at getting a knowledge of the essential part of German grammar. Books to be used: Zschokke's *Neujahrsnacht;* Eichendorffs *Taugenichts;* Fougŭe's *Undine;* Some of P. Heyse's shorter stories. Through the year, 5 hours.

II. Historical works will be read, such as are to be found in the Neue Plutarch; Freytag's *Bilder aus neuer Zeit.* In addition derivation of words will be studied. Lutz's Derivatives. Winter Term, 3 hours.

III. Selections from the works of *Goethe, Schiller, Lessing,* etc., will be read and discussed without translating the lessons. Spring Term, 3 hours.

IV. Literature of the 18th centnry. Through the year.

V. Selections from Martin Luther's writings. Talks will be given on the history of German grammar, based on Brandt's historical German grammar. Winter Term, 2 hours. Spring Term, 2 hours.

VI. Middle high German will be taken up in this course. The grammar will be taught by talks. The class will translate into modern German Hartman von der Aue's *Der arme Heinrich; das Nibelungenlied,* etc. Fall Term, 2 hours. Winter Term, 2 hours.

ITALIAN.

I. Toscani's Grammar. Composition. I Promessi Sposi.

II. Grammar. Selections from Ariosto, Boccacio, Petrarca and Dante.

SPANISH.

I. Jose's Grammar. Composition. El Eco de Madrid. Gil Blas.

II. Grammar. Selections from Calderon, Lope de Vega. Cervantes.

VOLAPUK.

Lutz's Grammar. Sprague's Grammar and Reader. Composition.

ANCIENT LANGUAGES.

LATIN.

The Roman method of pronouncing Latin is used.

Required—I. The work of the first year (3d Preparatory) comprises the translation of the first Book of Cæsar's Gallic War; the memorizing of selected passages and idioms; the reading at sight in class of passages afterwards carefully prepared; the translation of Latin sentences into English, and of English into Latin; and an outline study of Latin Etymology and Syntax.

The text books in this year are Comstock's First Latin Book, Kelsey's Cæsar, and Harkness' Standard Latin Grammar.

II. In the second year (4th Preparatory) Cæsar is read the first term and part of the second, (three Books); Sallust's Catiline follows Cæsar in the second term, and is continued two hours a week in the third term, with Latin Prose Composition three hours a week.

Text books, Kelsey's Cæsar, Harkness' Sallust, Jones' Latin Prose Composition.

III. Cicero (three Orations)—first term—four hours. Harkness.

Cicero (three Orations)—second term—three hours. Harkness.

Composition—third term—two hours. Jones.

Ovid (extracts from the Metamorphoses)—third term—three hours. Lincoln.

SOPHOMORE YEAR.

IV. Virgil (Æneid, Books I and II)—second term—three hours. Greenough.

Virgil (Æneid, Books III, IV and V)—second term—five hours. Greenough.

Virgil (Æneid, Book VI, Eclogues)—third term—three hours. Greenough.

Elective.—1. Cicero, (Essays, DeSenectute and DeAmicitia) first term—two hours.

2. Horace (Odes)—first term—two hours.

3. Composition—first term—one hour.

4. Latin Literature—with selections from representative authors from the rise to the end of the classical period—second term two hours.

5. Horace (Ars Poetica and selections from the Satires and Epistles)—second term—two hours.

6. Composition—second term—one hour. [6 can be taken only by students who have already had 3.]

7. Livy (Extracts from Books I to V, or Book XXI)—third term—three hours.

8. Terence (Andria or Adelphi)—third term—two hours.

9. Cicero (Tusculan Disputations, Book I)—first term—three hours.

10. Lucretius—first term—two hours.

11. Plautus (Captivi and one other Comedy at sight)—second term—three hours.

12. Cicero (Epistles); Pliny (Epistles); second term—two hours.

13. Tacitus (Annals)—third term—two hours.

14. Seneca (Moral Essays)—third term—two hours.

15. Christian Hymns—third term—one hour.

GREEK.

I.

1. Historical Selections—Xenophon and Herodotus.

4. Demosthenes.
7. Homer's Iliad.
10. Greek Drama.
13. Greek Testament.
16. Greek Literature.
19. Hebrew.

II.

2. Historical Selections—continued.
5. Plato's Apology and Crito.
8. Homer's Odyssey.
11. Greek Drama.
14. Greek Testament.
17. Greek Literature.
20. Hebrew.

III.

5. Lysias and Isocrates.
6. Thucydides—Speeches in.
9. Pindar.
12. Plato, Pædo, or the Tenth Book of the Laws.
15. Greek Testament.
18. Greek Literature.
21. Hebrew.

The above courses in Greek and in Hebrew, are arranged according to the succession of terms in which they regularly come—"I," Fall Term; "II," Winter Term; and "III," Spring Term. The numerals 1, 2, 3, indicate the courses of the Freshman year; 4, 5, 6, those of the Sophomore year; 7, 8, 9, those of the Junior year; 10, 11, 12, those of the Senior year. From 13 on, the courses are collateral or elective. Those from 7 to 12, that is, of the Junior and Senior years, are also elective. Course 1 is always to be taken first. To find the number of hours a week allotted to each course in each term, turn to the "Courses of Study."

The methods used in teaching are based upon a firm conviction that it is *not* best to make the work dry and difficult; that it *is* best to aim at a good reading knowledge for the student;

to introduce him early to a large amount of reading; and to let his knowledge of the language grow largely out of the text itself, rather than be confined to the outside help of books. More minute study comes later, as the aptitude for it is developed.

Careful attention is given to matters of history, archæology, and mythology, related to the texts read.

There is, everywhere, a free use of maps and charts, of which the Department has a good and constantly increasing supply.

Collateral research is required at every stage of all parts of the work.

Philology is one recitation a week, running through the year, beginning with the facts, and proceeding from them to the principles.

In Hebrew the same principles and methods govern as in Greek.

MATHEMATICS.

The Preparatory work covers the completion of arithmetic, three terms in algebra, and two terms in geometry.

The following courses are provided in the collegiate department:

1. Advanced Algebra—a course of *five hours*. Fall Term.
2. Solid and Spherical Geometry—a course of *four hours*. Winter Term.
3. Application of Algebra to Geometry, and Original Geometrical Demonstration and Solution—a course of *four hours*. Spring Term.
4. Plane and Spherical Trigonometry—a course of *five hours*. Fall Term.
5. General Geometry—a course of *five hours*. Winter Term.
6. Differential and Integral Calculus, with their applications to Geometry and Physical Science—a course of *five hours*. Spring Term.
7. Advanced Calculus—a course of *three hours*. Fall Term.

8. Advanced Calculus—a course of *three hours*. Winter Term.

9. Modern Higher Algebra, including Determinants—a course of *two hours*. Spring Term.

10. Quaternions—a course of *three hours*. Fall Term.

Courses 1, 3, 5 and 6, may be elected by students in whose General Courses they are not required studies.

ASTRONOMY AND APPLIED MATHEMATICS.

ASTRONOMY.

1. A course of *three hours* during the Winter Term. The gaining of an accurate and comprehensive idea of the Framework of the heavens is insisted upon.

2. A course of *three hours*, during the Spring Term, being a continuation of the above, in descriptive astronomy, special attention being given to modern methods and results.

3. *Elective.* A course of *three hours* per week during the entire year, including a large amount of practical work in the observatory, solar and lunar eclipses, reductions for obtaining time, latitude, longitude, etc. So far as possible, reductions are based upon the observations taken by the individual student.

Students desiring to do more advanced work will be given special direction in various lines of investigation, and will be granted free use of the observatory equipment in the prosecution of their studies.

PHYSICS.

1. A course of five hours during the winter term in elementary work, covering Mechanics, Hydrostatics, Pneumatics, Electricity and Magnetism.

2. A course of five hours in the spring term in Sound, Heat and Light.

3 and 4. A course of three hours in the winter term and three hours in the spring term, largely mathematical in treat-

ment. The special subjects taken up are elected, by the class, but the same subject will not usually be taught in successive years, thus enabling students to cover the whole field.

5. A course of three hours in the fall term in Meteorology and Mechanics of the atmosphere.

6. A course of one hour, in the spring term, in Sound in its relation to music.—This a Conservatory class.

SURVEYING.

Elective.—A course of three hours during spring term in practical surveying.—Land, Railroad, Leveling, Topographical Plotting, Field work.

CHEMISTRY.

Required.—Chemistry of the Non-Metals three times per week, together with Laboratory practice in the grouping and separating of Metals and Acids, two days each week and two hours each day, fall term.

Elective.—2. Qualitative Chemical Analysis, winter term. Laboratory practice two hours each day of the week.

3. Course 2 continued, 3 days per week during spring term.

4. Organic Chemistry, Laboratory work two hours per day, five days each week, fall term.

5. A three hours course in Quantitative Chemistry, Laboratory work, six hours per week, winter term.

6. Mineralogy, descriptive and determinative; Laboratory work two hours per day, three days each week, spring term.

7. Sanitary Science, lectures three times each week, fall term.

8. Advanced work in the above courses will be given to students showing special proficiency.

Students expecting to teach will be given work to prepare them in chemical manipulations, the care and management of a Laboratory, etc.

BIOLOGY.

Required.—As preparatory to the College work, a term's work each in Human Physiology and Systematic Botany is taught.

In Freshman Year all students are required to take Zoology,

four hours. Study from actual specimens is carried on as far as possible. Spring term.

Elective.—1. Microscopy, the practical study of the use of the Microscope in Biological Research. Each student is furnished with a Compound Microscope and other appliances for the preparatlon and mounting of objects for study; winter term, two hours each day, three days each week.

2. General Biology, in which underlying principles are discussed and low forms of life, both animal and vegetable, studied. Two hours of Laboratory work each day, and three days per week, fall term.

3. Animal Biology, a continuation of Course 2. Laboratory work two hours per day, three days per week; spring term.

4. Vegetable Biology, also a continuation of Course 2, in which several type forms of vegetable life are studied. Laboratory practice two hours a day, three days per week; spring term.

5. ***Research Class***, for the discussion of current Biological topics, reviews of periodical literature, etc., will meet once a week, and a class will be formed, during any term, when a sufficient number apply for it.

It is desirable that Course 1 should be taken before 2, 3 and 4, and Course 2 should precede 3 and 4.

In Courses 2, 3 and 4, students are required to (a) collect their material as far as practicable, (b) observe and study the object itself, (c) make careful notes on all points observed, (d) make drawings of separate structures and diagrams showing their relations to other structures, and (e) embodying the knowledge thus obtained, and no other, in a written account.

Students who show special proficiency in Courses 2, 3 and 4, may continue the work as Collateral Research. Research work is now being done in Bacteriology, Animal Histology, Water Analysis, etc.

GEOLOGY.

Dynamical and Historical, five times a week.

Advanced work will be given to students showing special proficiency.

HISTORY, POLITICS AND ECONOMICS.

Students desiring to take any of the work here laid out must have been credited with at least five hours in U. S. History and ten hours in General History.

1. Modern Political History of Continental Europe. Lodge. First term—The French Revolution. Second term—Decline of the Holy Roman Empire; Rise of Prussia; Establishment of the New German Empire.

2. Recent English History. The Epoch of Democratic and Economic Reform, from 1815 to the present time. Four hours per week during the fall term.

3. History of Civilization. Guizot. Three hours, 2nd term, two hours 3rd term.

4. Political and Constitutional History of the United States. Five hours, 2nd term.

5. Political Economy. Walker and Lectures. Three hours 1st term, two hours 2nd term.

6. International Law. Davis. Four hours 3rd term.

7. Philosophy of the State. Lectures. Two hours first term. Essays required from the students.

8. Political Science. Lectures. Two hours 2nd term.

9. Comparative Constitutional Law. Woodrow Wilson's The State. Five hours 3rd term.

10. ***A Research Class*** will be formed for work in Politics and Economics, during the first and second terms. Studies carried on involving, as far as possible, the use of original authorities; reports will be given upon books and articles from the periodicals; suggestions made as to the best methods of work, etc. In the third term the work will consist chiefly of studies from the periodicals on current topics. Credits, from one to three hours, at the discretion of the Instructor in charge.

NOTE.—From courses 4 to 10 only such will be given in any year as the demand and other circumstances of the case may seem to make desirable.

BELLES-LETTRES.

An examination of the tabulated courses will be sufficient to determine the work done. The range of studies is comparatively broad and the instruction is thorough.

PHILOSOPHY.

Required—I. Psychology—Method, by lectures and daily examination of standard authors.

Analysis of Mental Phenomena and Faculties specially insisted upon—first half of the year.

II. Logic—Inductive and Deductive—The identity of fundamental principles explained, and the special office of each form of Logic given. For outlines of the subject, Jevons; for fuller study of special subject, Mill and Lotze—half a year.

Elective.—III. History of Philosophy.—This must be preceded by Psychology in order that there may be a standard of Philosophy in the mind of the student with which to compare the theories advanced by the different Schools. A thorough analysis of each school will be presented, with the two-fold aim of learning the History of Philosophic Thought, and determining what is true in the different systems studied. The first half of the year—several works used.

IV. Moral Science.—The fundamental principles will first be considered, then their application to human life. This study follows Psychology, and is pursued in the latter half of the year. One term—Calderwood and Porter.

V. Theism—Bowne used as a text book—taught during the Spring term.

VI. Evidences of Christianity—A careful scrutiny of the several classes of evidence relied upon, with the study of the bearing of the same on the question of a divine revelation as appearing in the Bible.

DEPARTMENT OF ORATORY.

The college has, from the first, felt the need of work in ***Oratory in connection with its courses of study.*** No greater per-

version of meaning exists than that which calls Elocution simply an accomplishment. There is no branch of education which touches practical life more constantly and vitally. The fact that speech is common to all races of men shows its great value. Colleges have not given that attention to the study of the science of speech and the cultivation of the powers of expression that the subject demands. This grows in part out of the fact, perhaps, that the country is flooded with men, called elocutionists, who have introduced unnatural mannerisms into speech, perverting thought rather than giving expression to it. The real art of expression is the adaptation of voice, gesture—the physical—to the meaning of the sentence or discourse spoken. The end sought is the objective presentation of that which is subjective—the accurate unfolding or declaration of thought. Dr. Holland says, "Thousands of young men and women are graduating from our institutions, expecting to become professional speakers who do not stop to think that to become a successful public speaker requires as much special preparation as for any given department of professional life.

Cicero asserts, in substance, that manner is of more importance than matter. Bishop Butler speaking of the Elder Pitt's celebrated speech on the 'Stamp Act' said: 'There is nothing which an ordinary man might not have said; it was the *manner*, and the manner *only* which produced the effect.' "

Possibly some of these statements may be considered slight exaggerations, but it is certainly true that in ***the best scholarship for practical ends culture is two-fold,*** thought and expression of thought. It is evident that subjectively mental energy loses half its power when hidden behind imperfect and faulty modes of expression; we think in words and sentences. And it is also true that most scholars desire to employ knowledge in such a way as to impress the public most fully.

The Department of Oratory has opened in the college with very gratifying evidences of favor. Its work is elective, and has been chosen by a large percentage of students in the literary courses. The opportunity for supplementing the Depart-

ment work in Elocution proper with the English Classics, Psychology and Voice Culture, will give a breadth and scope for the course of instruction which schools distinctively elocutionary do not offer. It is proper to mention here that an opportunity of appearing in weekly public recitals in connection with the exercises of the Conservatory of Music is given those whose work is of a superior order. Each term closes with a special recital.

Method of Instruction.—This is similar to that employed by the late Lewis B. Monroe, Dean of the Boston School of Oratory, with such adaptations of the principles of expression formulated by Francois Delsarte as are considered most essential and practical.

A Complete Course in Oratory embraces vocal and physical gymnastics, insuring culture and flexibility of voice and bodily action; ***sight reading***, for securing mental promptness and accuracy; expression, forensic, dramatic, pantomimic.

The ***Growing Necessity*** for skillful teachers of expression in the graded schools, not to speak of the acquirement of that which constitutes a stepping stone to eminence in professional life, and a graceful introduction into the first literary circles argue strongly in favor of a careful study of the "Art of Expression."

The Institution desires to develop the Department of Oratory into a school of oratory. It will probably take some time to accomplish this fully, but the following is a tentative effort in this direction. We print it, ***not as final,*** in the scope and form of work to be done—which will probably undergo great changes —but as showing to some extent the elements which enter into the problem. We invite criticisms and suggestions, hoping that in the course of a year we may be able fully to mature our plans. We solicit the attention of the learned public, particularly teachers, to this subject, that we may understand the wants to be met.

GENERAL OUTLINE OF COURSE IN ORATORY.

FIRST YEAR.

FIRST TERM.	SECOND TERM.	THIRD TERM.
Analytic Expression.	Analytic Expression.	Synthetic Expression.
Monroe's Sixth Reader.	Monroe's Sixth Reader.	Monroe's Sixth Reader
Presentation of Individual Work.	Developmentof Action	Public presentation of Recitative and Declamatory Work.
(With Criticism.)	Recitative and Declamatory Work.	(With Criticism.)
McIlvaine's Elements of Oratory.	McIlvaine's Elements of Oratory.	McIlvaine's Elements of Oratory.
The above outline includes the cultivation of voice, development of individual conception and a thorough drill in the exemplification of the Principles of Inflection, Emphasis, Rate, Pitch, Stress and Voice Quality.	The second term will be a continuation of the principles Theoretic and Exemplified, with more specific instructions regarding Dramatic Action. Action is never left out of consideration in the study of Expression.	The third term should enable the student to secure some of those synthetic and normal results which spring naturally from proper analysis. It is illustrated with selections in Transition and Style.

SECOND YEAR.

Ross' Manual of Expression.	Ross' Manual of Expression.	Ross' Manual of Expression.
Dramatic Action and Phil. of Expression.	Delsarte.	Delsarte.
Original Work.	Original Work.	Original Work.

The above course may be completed in two years and carry on some other regular College or Department work.

We hope soon to fill up and arrange the course so as to warrant the giving of a diploma or granting a degree.

COMMERCIAL DEPARTMENT.

The object of this department is two-fold:

1. It gives to all who may wish to engage in business pursuits an opportunity to fit themselves in the most practical manner possible.

2. It affords an opportunity to all students at their option to take commercial studies as a part of a literary course, and receive credit for the same.

The benefits of a business education are becoming more apparent each year. The rapid increase in our population is causing a corresponding growth in our commercial transactions. This increased activity in business circles must necessarily open the way to many a young man for a successful entrance into the active duties of life. The first question which every thoughtful young person will ask is, How may I best fit myself for success in life? The answer, educate yourself.

The objection to Business Colleges is oftimes raised that they are merely theoretical, that they are of no practical value; that the time spent in taking a course in book keeping could much more profitably be spent in some office where a remuneration for one's work could be obtained and the knowledge of book keeping also acquired.

This objection was much more true ten years ago than now, and yet not all Business Colleges have kept pace with the times. The aim is something practical, but the majority have not passed the theoretical period. In Albion Business College we have a thoroughly practical school. The student is first given work in the Theory Department, where he is taught the principles of single and double entry book keeping, by means of text book work, class recitation, and black board illustration. Afterward, he is passed to the actual business department, becomes a business man, and is thrown entirely upon his own resources. What he learns by experience he will never forget. He sees the transaction as it occurs, and associates the entry

with the transaction. The student handles the goods which he buys and sells, giving and receiving checks, notes, drafts, and all the various forms of commercial paper. By this method the student is taught self-reliance. There are no two sets of books in the school that are alike, and hence there can be no opportunity for copying results. Each student must think and act for himself. In our school only the shortest methods are used. We follow no one style of book-keeping, but take advantage of the good points of all. Only real values bring out and test the ability and sagacity of the person concerned. It is a misnomer to call an imaginary transaction practical. This miniature world of business, where students vie with each other in making the most desirable bargains and investments, to the end that the result of their labors may show a profit, accomplishes infinitely more in developing their powers and capabilities, teaching them to think and act for themselves, than is possible by any other plan.

Another reason why so many Business College graduates are not fitted for work is because of the short courses which so many colleges present. Two to four months is not time enough in which to learn a profession. Practice makes perfect, and it requires a good deal of it at that. In the preparation of our course we have had in mind *not simply a trained book-keeper, but rather a trained business man.* The course is designed to cover a period of nine months.

Our Course of Study has been arranged with the aim of developing the business capacity of the student by a thorough course of training, while we impart a knowledge of the laws which govern the business world; a knowledge of penmanship, grammar, mathematics, and business forms; and thus by a broad and systematic training our students will become successful business men and worthy citizens of our great Republic.

Penmanship.—We teach a plain, rapid, bold business hand, such as is called for in correspondence, in journalizing, in ledger headings, etc. We aim at neatness, legibility and rapidity to the total exclusion of all superfluous lines and flourishes.

English Branches and Commercial Law. — Realizing that our course should be made as practical as possible, we have introduced those studies which, when pursued with book-keeping and penmanship, will enable a person to obtain a thorough knowledge of business. All our work in Arithmetic, Commercial Law, Grammar, Commercial Forms, and Correspondence, is done very thoroughly, and only those parts of each study are dwelt upon, which are of the most importance.

Book-Keeping.—In our actual Business Department, our school is a completely organized Business Community, and business is carried on by our students in the same manner as by merchants in the business world. After having mastered the underlying principles of Book-Keeping, as taught in our theory department, the student is furnished with a cash capital of one thousand dollars, together with all the blanks that are necessary for the transaction of business. Aside from the set of books, the following business forms will be used during the Course: Notes, Drafts, Receipts, Checks, Bill Heads, Shipping Invoices, Freight and Shipping Receipts, Certificates of Deposit, Stock Certificates, Deposit Slips, Insurance Policies, Bills of Exchange, Account Sales, Statements, Deeds, Mortgages, Leases, Bills of Sale, and in fact every form ordinarily used in business. Our merchandise is represented by small cards, each of which has a given value, and is bought and sold at a discount proportionate to the supply and demand. The school is also supplied with College Currency. The capital with which the student has been furnished he now deposits in one of the College Banks and takes a Pass Book. He next leases a place of Business and at once begins to job. He buys from the student merchants at the best discounts possible, and finds in the teachers customers for all the goods he may have to sell. He is shown how to properly fill out the various forms, make the different entries, correctly post the same, make out statements and close the Ledger. He goes through this process several times until he becomes familiar with it and is able to finish a set without help. He is now advanced to the Boot

and Shoe business. From now on he buys from the Merchants' Emporium, at wholesale prices, and sells to jobbers. He is also compelled to do some jobbing in each set for the purpose of increasing the number of the transactions, and enabling him successfully to handle large numbers in trial balances. From the Shoe Business he advances through the different lines of trade, such as Dry Goods, Groceries, Flour and Feed, Produce and Provisions, Commissions, Clothing, and General; in each of which he finds some principle which is as yet new to him. After finishing his work as a retail merchant the student is ready for the offices, which are provided with sets of large books. These are the Transportation office, Merchants' Emporium and the Bank. Of the last two we have two each. Upon the completion of the prescribed course the student is given a final examination on all points covered, and if he has an average of 80 per cent. he is given a diploma.

COURSES OF STUDY.

BOOK KEEPING.

JUNIOR COURSE.	SENIOR COURSE.	ADVANCED SENIOR COURSE.
Definitions and Terms. Rules for Journalizing. Ledger acc'ts. { January. February. March. April. May. June. Shipment acc'ts. { July. August. Aux. Books introduced. { Sept. Oct. Nov. Dec. Elementary Business Practice. { Wholesale Shoe. " Dry Goods " Grocery.	Single Entry changed to { Jan. Double Entry { Jan. (con.) February. March. Special Column Journal. Executor's Books. Petty Ledger { May. June. Cash Method. Shipping and Commission. Wholesale. Business Practice. { Wholesale Flour-Feed " Produce etc. Commission. Clothing-Furnishing. General Merchandise	Retailer's Business. Manufacturing. Banking. Advanced Business Practice. { Grocery (S. E.) Manufacturing General. Office Work { Real Estate. R. R. and Shipping. Commercial Exchange Merchant's Emporium. Commission House. College Bank.

SCHEDULE OF OTHER REQUIRED STUDIES.

FALL TERM.	WINTER TERM.	SPRING TERM.
Rapid Calculation...5	Rapid Calculation..3	Rapid Calculation...2
Penmanship 5	Penmanship 5	Penmanship 5
Commercial Law....3	Civil Government...5	U. S. History..... ...5
Commercial Arithmetic.....3	Commercial Arithmetic 5	Commercial Arithmetic... 5
Correspondence 2	Commercial Forms.3	Spelling 3

Shorthand.—In the Commercial Department the Eclectic Shorthand is employed. We endorse the following propositions which, though prepared by its special advocates, we insert in the Year Book.

1. IT IS THE BRIEFEST.
2. IT IS THE SIMPLEST.
3. IT IS THE EASIEST TO WRITE.
4. IT IS THE MOST LEGIBLE.

PROP. 1.—In December, 1880, *Browne's Phonographic Monthly*, then the leading stenographic journal, published comparisons of twenty-five of the best systems in existence, giving the writing, in all the systems, of a stanza of five lines. The Eclectic writing of the stanza contained, by actual computation, 14 per cent less than the briefest of the others (Graham's), and 40 per cent less than the longest (Lindsley's), and was 30 per cent briefer than the average of all of them; *hence the briefest system.*

PROP. 2.—It is the only system of the twenty-five which is based on the English alphabet. It contains less than fifty word signs, and has no exceptions to rules; *hence the simplest system.*

PROP. 3.—*It is the only system of the twenty-five which dispenses with vertical characters*, writing with characters in three directions instead of four, and the only system of connective vowels similar in form to the consonants, and with a single exception the only light-line system; *hence the easiest system to write.*

PROP. 4.—It is the only system of the twenty-five that makes as free use of vowels as of consonants, and while writing words with less strokes, *still by its principles writes words more fully and with less memorizing of word signs than any other of the twenty-five.* It also has no vertical strokes to become confounded in rapid writing with similar oblique characters; *hence the most legible system.*

Typewriting.—Our students have the use of Remington Typewriters the best in the market to-day, and are drilled upon the principles of correspondence. An hour a day is also devoted to the improvement of their penmanship. The average time

necessary for the completion of the course is four months. For further information concerning this department, or for our circulars, address Professor C. A. Head, the Principal.

APPLIANCES FOR INSTRUCTION IN COLLEGE AND PREPARATORY SCHOOL

The Astronomical Observatory.—The Observatory stands on the campus, on high ground, affording an uninterrupted view in all directions. The building, built in 1883, is of brick, two stories high, with a round tower which rises to three stories, and is surmounted by a dome.

On the lower floor are the lecture room of the department of Astronomy and Applied Mathematics, and the pier-rooms through which pass the brick supports for the fixed instruments. These are also utilized for containing the apparatus employed in the study of Physics. On the second floor are the Transit room, containing the Transit Circle, Clock and Chronograph, a computing room, a room for portable instruments, used also as a workshop, and a room containing the Astronomical and Meteorological Library. Here are also kept the meteorological instruments, observations of which are taken three times a day and forwarded to the offices of the State Board of Health and the United States Signal Service. In the round tower is placed the Equatorial.

The instruments are of the best class, the chief among them being as follows:

1. A Transit Circle, by Fauth & Co., of four inches aperture, reading by two micrometer microscopes to single seconds. It is provided with micrometer in right ascension and declination.

2. A Siderial Clock, by Fauth & Co.

3. A Chronograph of latest style, by Fauth & Co., with Saegmueller's maintaining power.

4. The Equatorial, constructed and mounted by Alvan Clark & Sons, of eight inches clear aperture, and provided with circles,

driving clock, filar micrometer and a full outfit of eyepieces, both Huyghenian and Ramsden.

The above instruments are all in electrical connection, that all observations may be recorded by the Chronograph.

The Meteorological Instruments include a Standard Barometer, Maximum and Minimum Thermometers and Psychrometer by J. & H. J. Green, Rain and Snow Gauges, etc.

Excellent instruments are also provided for practical work in field surveying.

The Astronomical and Meteorological Library contains nearly 300 bound volumes and pamphlets, always accessible to advanced students, for reference and research. Works of an elementary and more popular character are left in the general library.

During the past year the finely graduated circle on the Transit Instrument, that had become injured and somewhat inaccurate, has been replaced by one newly graduated that affords very superior results.

A Screw-cutting Engine Lathe, by F. E. Reed, of Worcester, Mass., has been purchased for the workshop, and is used in the manufacture and adaptation of apparatus for the illustration of physical problems.

Though the instruments are of the best, it is a maxim here that none of them are too good for use, and students are encouraged to employ them in their studies to as great an extent as they may be able. The advanced class in Astronomy is required to become familiar with the astronomical instruments and their adjustments to such an extent that they make reliable observations and reduce them accurately. So far as possible, all work is based upon observations taken by the student who performs the reduction.

It is a noteworthy fact that the vast bulk of astronomical knowledge has been gained by the use of instruments far inferior to those upon these grounds. The Transit Circle, with a good brain behind it, is adequate for nearly every class of observations to which such instruments are applied, and the Equa-

torial, which is supplied with an objective of unusual perfection of figure, is of the same size as those by which Dr. Huggins made his remarkable studies in stellar spectra and in star motion in the line of sight; by which Neison and Beer and Mädler made their renowned studies upon the moon, whose surface is now far better known than that of our own earth; by which Schiaparelli made his wonderful discoveries of the duplicate canals (?) upon our companion planet Mars, etc., etc. It is true that this is an age of great telescopes, but the mechanical and optical difficulties in the way of their use render it certain that the really useful instruments of the future, as of to-day, will be found among those of smaller aperture and consequent facility of management.

Library.—The number of books added to the library during the past year, ***aside from unbound volumes,*** is 510, making the whole number now in the library 7,363, aside from over 2,000 unbound volumes and pamphlets.

The nucleus of a ***Bibliographical Museum*** has been formed by placing in the Library a glass case for books specially notable on account of age, rareness, ownership, etc.

In the management of the Library great pains is taken to induce the students to use it as much as possible, since we hold that to train them in the use of books, the store-house from which all alike must draw, is one of the most important functions of the College. With this object in view ample indexes are provided; books much in demand are placed within the reach of all; and new books are placed in a revolving case in the reading room, where their accessibility will tempt every one at least to look them over. The utilizing of new books is further secured by placing them in the hands of the teachers most interested, who frequently assign them to students to review before their classes, thus giving all an opportunity to learn the bibliography of the subject, and filling all with new zest for work in the several departments.

The usefulness of the various reports, collections, etc., in

chemistry and biology, has been greatly increased by ***transferring them to the chemical lecture-room,*** which is now kept open during the day, and is being used as a study room by those most interested in these lines of study.

To facilitate such a use of the library, ***card indexes*** are prepared and placed in easy access to all students. First, ***a card index of authors,*** alphabetically arranged. In this the author's name is the leading word upon the card, and below it, or on successive cards, are placed the titles of all books in the library of which he is the author. The number of the book is placed upon the card opposite the title. The student, knowing the author's name, is thus guided to the desired book.

Another drawer contains ***a title index,*** or catalogue, of all the books in the library, on cards alphabetically arranged. In this the title of the book is the leading word upon the card, the author's name following. The advantage of cards, instead of a printed catalogue, is that it admits of continued accessions without destroying the alphabetical arrangement.

Then there is the ***subject index***, in which the subject is the leading word upon the card, and all books treating upon that subject, even those in which it is only incidentally mentioned, are there referred to by name, number, and, if it is only a sketch or article in a book of which that subject is not the title, the page also. A student, desiring to investigate any subject, is thus guided to all there is in books and pamphlets upon that subject in the library.

Another drawer contains the ***biographical index,*** where the student is guided to the biography and biographical sketches of any one of whom he wishes to learn.

Still another drawer contains an index of current events, where the important events of the day, as they transpire, are recorded on cards. If the student wishes to know when Mr. Emerson died, or when President Garfield was shot, or when any other important event occurred, he goes to this index.

Besides these the library is supplied with ***Poole's index*** of periodicals, in which all the leading periodicals of the day are

indexed, up to 1832, supplemented by the Co-operative Index of Periodicals, published quarterly. By these, students are guided to what they desire to find in the bound volumes of periodicals. Thus there are marked out paths to guide both the faculty and the students to such information as they wish to obtain in the library.

It is customary for members of the faculty to ***assign to the students certain topics for research,*** or subjects to obtain information upon, and thus their acquaintance with books is greatly extended, and they are disciplined in the practice of research. Tables are placed in different parts of the library where such students are permitted to sit and prosecute their investigations. The library is open during all school hours, and on Saturdays. and is free to all students.

Pastors' Library.—We called attention last year to the fact that the college has inaugurated what may be designated a ***Methodist Pastors' Library***, five hundred dollars having been received as a bequest from Peter M. Emery, the use of said money to be determined by Rev. Levi Master. Believing that the church would be most largely benefited by such disposition of the funds, Mr. Master has turned the same over to the Library of the College. To this additions are being constantly made.

Reading Room.—The *reading room* is provided with a two-fold end in view; to furnish a wide range of general newspaper and magazine reading, and to supply advantages for special educational work. It contains the leading religious and secular papers of the country, with some from foreign lands, including French, German, Latin and Greek. It is supplied with the principal magazines of this and other countries.

Maps and Charts.—Of apparatus for illustrating the work in Language, Literature and History, we have probably as large a collection as any school in the United States. ***Both the Latin and Greek*** departments are provided with full sets of classical

maps. The Greek department has abundant materials for the illustration of Greek Archæology, and a rarely complete set of charts for exhibiting in detail the topography of ancient Athens. The head of this department is working out on an original plan a series of language charts which, when completed, will present to the eye a full outline of the leading facts of Greek Grammar.

The History department, where the "Layer Map" plan, (elsewhere described) has been introduced, has at its command about 180 maps, representing successive stages in territorial history. If every change which can be represented singly be counted the total number of possible maps would aggregate about 800. In addition to the series formerly prepared, showing the development and break-up of the Roman Empire, the formation of the new nations up to 1843, A. D., the break-up of the Ottoman Empire, from 1699 to 1885, the development of Prussia to 1866, the growth and dissolution of the Napoleonic Empire, and the unification of Italy; we have recently prepared a set of "layer maps" for the United States, showing every territorial change in its history from 1763 to 1876,—changes the number of which falls but little short of 100. As new maps are being constantly added, we hope to be able in a few years to exhibit every important territorial transfer appearing in the course of history.

The advantages of the device we employ are apparent. It is superior to the series of maps, because (1) it changes with history; (2) a more definite concept of the changed territory is obtained when it can be taken off and handled as a piece of cloth; (3) the student can be set to work out the changes for himself,—to build up or take to pieces the map; and (4) it is less expensive, involving but one or two full-sized maps. It is superior to the black-board scheme, because (1) it is clearer; (2) it is more accurate; (3) it is easier to reproduce, and so not too difficult for the student and the overworked teacher; and (4) it preserves both the original condition of things and the changed order, each of which can be reproduced in turn, and

thus the exact nature and extent of the change can be clearly and definitely seen.

Incidentally, the use of a soft-wood back has suggested several little devices which we find quite helpful. For battles we use a bright red spear-head of stiff cloth fastened with sealing wax to the head of a needle. These, being removable, are placed on the map just where events call for them; can be made large enough to show across any room without permanently disfiguring the map; do not crowd regions like the Netherlands, where many battles have been fought, till the confusion is hopeless; and, finally, furnish, in putting them on, a useful exercise for the student. Similarly, we use a yellow star on a black circle, for treaties of peace, and lines of colored braid to follow expeditions, such as Alexander's, or the crusades. Doubtless other expedients of the same nature will suggest themselves.

Museum.—The modern museum is not a mere collection of rare curiosities, but is rather considered as a valuable adjunct to the work of instruction. This service the Museum of Albion College performs. Its specimens are daily brought to the Laboratory and class-room for dissection and observation, the students thereby being able to study the fauna and flora of the distant portions of the earth.

Besides the mounted specimens displayed in the cases, the college keeps constantly on hand many hundreds of specimens of type forms preserved in alcohol, in order that when a given subject is reached every member of the class may be supplied ***with a study specimen.*** In this way the work of acquiring knowlege of a subject, such as Botany, Zoölogy or Mineralogy, does not consist in the mere acceptance on faith of the statements of the author, but it is the privilege of the student to challenge those statements by a practical appeal to the natural object.

Again, the Museum is for the purpose of entertaining and educating the general public. Many hundreds of people in

the course of the year visit these rooms and go away with much information which could be procured in no other way.

As heretofore we are under obligations to our friends for the interest they are taking in the building up of this part of the appliances of the college. Thanks are due to Mrs. Ella Hoag-Brockway, J. C. Eslow, A. E. Hagle, and Geo. L. Cole of Los Angeles, Cal., for additions to the collection.

The State Geologist has sent to the college a complete set of the minerals of the State, the receipt of which is hereby thankfully acknowledged.

Mr. J. C. Eslow has furnished us with many interesting war relics.

The museum has been specially enriched during the year with several gifts of curios from foreign lands of more than usual interest. Miss Lizzie Hewett has sent articles of clothing worn by the women of the original tribes of Mexico, way up among the mountains, and Miss Schenck of Loftcha, Bulgaria, a rug and choice collection of botanical specimens.

From Miss Knowles, before she returned to India, were received some idols and jewelry,—(rings for the nose and bells for the toes,) and a friend has given a Chinaman's suit with a bamboo jacket, which adorns a form in one of the cases. The greatest addition that has been received, was the bequest of the late Mrs. E. A. B. Hoag.

For years a leader in the work of the W. F. M S., friends in foreign fields had sent her rare gifts, which illustrate modes of life and thought—things used in heathen worship and articles of intrinsic value.

Greatly interested in securing a missionary collection for the college, she wished the costumes from China and Japan. The precious porcelains, books, idols, incense, fetich stick and other treasures from Africa and India to be the nucleus to which those going out from Albion would add in future years. The bequest nearly fills two large cases, which have been constructed for it.

Among the special features of the Museum may be men-

tioned the collection of coins and other historical relics. Cases are now provided for this collection, and it is to be hoped that soon we shall have a large amount of material to aid in the study of history. We are also exceedingly anxious to make complete collections in two directions, viz: Indian relics, and objects of interest used in the late war. Two large cases have been added for this purpose during the past year.

Laboratories.—The ***Chemical Laboratory*** contains tables for thirty-five students, fully furnished with re-agents and all apparatus required for the thorough demonstration of the facts and principles of the science.

The ***Biological Laboratory*** contains tables for forty students, sixteen compound microscopes, several hundred mounted objects, and all necessary appliances for preparing and mounting specimens in all departments of biological research.

These appliances are constantly increasing. They are regularly used in the class room, where they furnish experimental proof of the laws and theories discussed.

CONSERVATORY OF MUSIC.

The larger part of the work in this Department at present consists of instruction on the Piano and Violin, and Voice Culture. Aside from the above, instruction is given on the Organ, Guitar and other orchestral instruments.

Piano.—It is the chief aim of the Conservatory to teach both the Science and the Art of Music in such a thorough and systematic way that they shall be, *what they so often are not, of available* and *practical* use to the student after having completed a course. Great care is taken to secure a correct technique; also a proper position of the person, hand and arm while the pupil is seated at the instrument.

Careful attention is given to the development of the muscles of the hand and fingers, and in acquiring flexibility of fingers, wrist, etc. In short, the methods which have for so many

years made the German Conservatories famous, are closely adhered to. Much time is given to the cultivation of a taste for the best forms of classic music.

The Course in Piano Music consists of ***Seven Grades,*** each based upon such studies and selected pieces as form the standard of the various degrees of proficiency at the best institutions of a similar kind. Upon entering, each student will be examined and graded accordingly, while promotion is not limited by time, but depends entirely upon the progress of the student. A student of ability can, with proper application, almost finish the first three grades in one year. In most cases four years will be sufficient to complete the course. It is advisable that students should begin music with the determination of completing, at least a certain part of the course, if not the whole.

Instruction is given, both in ***private lessons and by "class teaching,"*** according to the preference of the student. The classes consist of either two or three pupils.

The courses have been arranged so as to secure the greatest thoroughness and proficiency in music as a science and an art. Students are admitted for a single term, but all will see the advantage of taking a full course of instruction, including, not only the ordinary lessons given on the piano, organ or violin, but also harmony and counterpoint. The literary studies of the course have been selected with reference both to sound and varied scholarship and the accomplishments of learning.

Aside from the regular lessons given at the instrument, there is a ***weekly drill of the entire Conservatory*** in the catechism of music. At these gatherings instruction is given which there is no time to impart in connection with individual or class lessons. There are also weekly rehearsals to drill and fit for public playing. The student thus gains confidence, his faults are corrected, and he is prepared to use to the best advantage the knowledge acquired.

Pipe Organ.—Every facility for systematic and thorough instruction to acquire a mastery of all kinds of organ music is afforded the student and a large pipe organ is at the disposal of

the Conservatory. A knowledge of harmony is indispensable to a successful organ study.

Violin.—A regular progressive course is laid out which is pursued in the Conservatory. Classes also are formed for ensemble playing which enables the student to become familiar with the best compositions of Volin literature and also offers opportunities of playing at the Recitals and Concerts of the Conservatory.

Instructors of superior ability are employed to teach in connection with any of the instruments used for orchestral or band music. It is our aim to make the College a center of interest and culture for the music-loving public, providing the best instruction for all who aspire to proficiency in any line of musical excellence.

As a part of the educational facilities of the Conservatory, there is also maintained, in efficient organization, ***a complete Orchestra.*** In this orchestra there are at present nearly fifty performers. These consist principally of students in the College, but some of the members reside in the city of Albion and have been connected with the orchestra for years.

Although orchestral music is generally transferred to the piano, yet the full effects of the Orchestra cannot be given by that instrument. Orchestral music is written in a special form and character, both to embody the idea of the composer, and also with reference to the instruments that are to express and interpret that idea. These instruments have a tone-color peculiarly their own, which is lost by transference of the music to the piano. The ***Orchestra thus opens to students of music an entirely new field of instruction*** and culture which is of great value. It is, however, only the more advanced scholars who can advantageously avail themselves of its benefits, and only these, therefore, are allowed to become members.

Vocal.—Important changes have been made in the Vocal Department. Especial attention will be given to the development of the voice, having special reference to a proper method of

breathing, proper emission of tone and accurate attack of pitch.

By referring to the list of students in ***voice culture*** it will be seen that this department is very rapidly growing. Very many students who enter upon the study of the principles of vocal music or join the chorus class, come to appreciate the desirableness of special voice training. All who desire to fit themselves for singing in church choirs, for teachers of vocal music, or for professional singing in any capacity, can here obtain the instruction and culture desired.

For all students desiring to study the principles of Vocal Music ***rudimental classes*** are organized, continuing through the year—the tuition for such instruction being merely nominal —to provide music for the most efficient movement of the class. After completing the study of the rudiments the students are admitted into the ***general chorus*** in which there is no tuition. The work of the chorus consists of the rendition of the higher forms of vocal music.

A model or juvenile class in vocal music has been formed, so as to prepare young persons for more extended study of music when they enter regularly upon the work of the conservatory. These young persons are thus preserved from contracting erroneous methods which would impair their progress in the future. A slight charge only is made for such instruction, as the conservatory expects to reap benefits in another form from this work in the future. These children are not catalogued in the Year Book.

All music students are organized into a ***Theory Class,*** which meets each week tor special instruction.

Students intending to teach music receive thorough instruction in the ***art of teaching,*** a special class being organized for this purpose.

During the year there are ***several Public Recitals*** which are especially intended to improve the taste for, and promote the appreciation of, the best masters. Haydn, Mozart, Beethoven, Bach, Mendelssohn and Schumann, furnish the broadest subjects to express the depths and grandeur of musical concep-

tion. The students are required to take an active part in these exercises. Also Recitals are given at the College by some of the most eminent musicians of Boston and other eastern cities, so that the student shall not fail to come into relation with the highest power of the art of music.

Persons are admitted into the ***Musical Course directly, on application,*** and are classified according to their proficiency in music.

The following is the course in Piano music:

COURSE OF STUDY.

[Diploma given on its completion.]

FIRST YEAR.

GRADE I.—First part of Instruction Book—(New England Conservatory, or Mason & Hoadley), studies by Gurlitt, Loeschhorn, Biehl.

GRADE II.—Kohel Op. 50 Duvernoy Op. 120. Loeschhorn Op. 65. Eschman studies.

SECOND YEAR.

GRADE III.—Bertini Op. 26-32. Czerny Op. 336. Loeschhorn Op. 66.—Books 1 and 2 Heller Op. 47.

GRADE IV.—Czerny Op. 299. Loeschhorn Op. 66.—Book 3. Heller Op. 16.—1st Book. Berens Op. 61. Krause Op. 5. Kohler Op. 128—1st Book.

THIRD YEAR.

GRADE V.—Czerny Op. 409 and 740. Loeschhorn Op. 67.—1st Book. Heller Op. 16—2nd Book. Kohler Op. 128—2nd Book.

Harmony, through the year.

GRADE VI.—Loeschhorn Op. 67—2nd and 3rd Books. Loeschhorn Op. 118. Cramer's studies, Bulow's Ed.—1st Book. Musical History.

FOURTH YEAR.

GRADE VII.—Cramer's Studies.

Chopin Op. 10.

Moscheles Op. 70.
Haberbier Studies, Poesies.
Clementi—*gradus et parnassum.*
Acoustics.
Harmony and counterpoint, through the year.

Text Books in Harmony—Parker's Theory, Richter's Manual of Harmony, and Richter's Counterpoint.

Degree of Bachelor of Music.—The degree of Bachelor of Music will be conferred upon such students as, in addition to the foregoing, evince the skill and conception necessary artistically to perform the works of the most exacting character, and show an extended acquaintance with the science and history of Piano-Forte Literature and Piano-Forte playing, and pass examination in Harmony, Counterpoint, Musical Forms, Musical History and Acoustics. Aside from this, they must possess a good knowledge of Belles Letters, including French, German and Italian. This will add about two years to the above tabulated course.

We call the attention of pupils to the following points:

Those who desire to get the largest benefit from study in this department, should be present on the first day of the term. They can be received later, but it is impossible to repair the loss sustained.

As the teachers are employed on fixed salaries no abatement from the charges for tuition can be made except in case of protracted illness of the pupil, when the loss will be shared with him.

Tuition must be paid in advance.

The teachers do not give instruction to persons who are not members of the Conservatory.

The course in Piano Music as laid down can usually be completed in four years, but no fixed time can be prescribed. This depends on the aptness of the pupil, and his fidelity to the work.

SCHOOL OF PAINTING.

The aim of this Department is to conduct the pupil with thoroughness from the simplest rudiments up to a knowledge of the higher branches of art, giving as far as possible a perfect understanding of all the work entered upon. The developement of taste and talents in the fine arts is now regarded as essential to culture. It will be seen by reference to the Course of Study in painting, that the student receives instruction in the elementary courses of drawing. These can be taken in the class with others who are in this and the Literary Departments. Then, special and individual attention is given to the study of ***object drawing, linear and aerial perspective; landscape, figure, flower and fruit painting, in oil, water colors and pastel; painting and crayoning portraits, pen drawing and India ink wash drawing for reproduction, decorative painting and design.***

The Art Department connected with the college adds much to the needed practical side of education.

Prof. Thompson of the Worcester Technical School tells us that, "A boy who spends two hours a week in drawing, and the rest of the time in working at the bench, learns his business faster, and becomes more skillful in it, than one who works all the time." Again, "It is calculated that the productive efficiency of every machine shop would be increased thirty-three per cent if every journeyman could read any common working drawing and work by it."

Mr. Ware, Professor of Architecture in the Boston Institute of Technology says, "Drawing is an invaluable element in general education. To the working man it is of the greatest practical use; it makes him a more intelligent and serviceable workman. If he attains to real skill in the use of his pencil, and develops the tastes and talents that cannot without the training be either discovered or made use of, he becomes a valuable person at once. Every branch of our manufactures is suffering from the want of just this intelligence and skill."

Says Professor Bail of Yale College, "The whole nation is

deploring the lack of good ornamental designers. We are becoming tired of sending so many millions to Europe for articles that we might produce cheaper at home if we had skilled designers. This branch of industry affects articles for the homliest use."

But it is well known that art study, besides having a tangible value in its relations to manufactures, is designed to promote improvement in taste. The highest and best purpose of any attainment is that which ministers to the intellectual and spiritual wants of man; few channels being more permanent than the prennial delight afforded by good art.

Painting can not be sucessfully followed by one ignorant of such truths in the sciences as bear directly upon the art. Anatomy, Natural Philosophy, Botany, Chemistry, etc., cannot be taught in the private studios as effectually as by departments having these studies in charge. These studies can be pursued by students of painting without interfereing with their hours for lessons.

Landscape study from nature is much more easily and agreeably accomplished here in Albion than in the large cities, as the college buildings are located near the open country and many beautiful scenes are found along the Kalamazoo river, not a quarter of a mile from the studio. Especial attention is given to this branch during the spring and fall terms.

The new Letters course now offers an attraction to students who might wish to take music and painting in connection with such a course. A certain number of hours devoted to painting may be credited in this course if the student desires.

Decorative Painting.—This department of the school of Painting was opened one year ago, and is meeting a want which has for some time been felt in the institution. The interest is growing and much pains is taken to provide that which is beautiful and complete in this art. The work is all completed here—setting the colors by heat, etc.

The charges for instruction in the School of Painting—which are moderate—will be found on another page.

FIRST YEAR.

FIRST TERM.—Freehand outline from cards, chart, and blackboard lessons 1-5
Dictation lessons of right line figures and simple curves. Linear drawing, with definitions in plain Geometry.. 2-5
Oil painting in monochrome from simple designs..... 2-5

SECOND TERM.—Drawing from more advanced copies, flat examples. Memory and dictation lessons.....1-5
Object lessons illustrated by drawings, etc.....1-5
Shading from flat and simple objects in Charcoal.....1-5
Painting in Oil from simple designs 2-5

THIRD TERM—Freehand outlines of ornaments and objects.....1-5
Drawing and shading from objects or casts.....1-5
Freehand drawing, and map drawing with memory and dictation lessons; in class three hours weekly.
Painting in Oil from flat examples 3-5

SECOND YEAR.

FIRST TERM.—Design in Geometric forms.....1-10
Dictation lessons in Crayon drawing, viz: at least two examples finished to absolute shading.....1-10
Painting from examples dictated, viz; from flat examples or objects.....4-5

SECOND TERM. — Model and object drawing 1-5
Linear Perspective, shades and shadows; by instruments, in class, three hours weekly.
Harmony and mixture of colors (with text Dresser and Von Bezold) 1-5
Design from natural foliage, and painting in Oil from natural objects and still life... 2-5
Pen drawing for Photo-engraving 1-5

THIRD TERM.—Shading in chalk and color and India ink 1-5
Painting in Sepia, Neutral tint, and Water Color.....2-5
Prescribed reading on Painting, Sculpture, and Architecture.....1-5
Porirait in Crayon.....1-5

THIRD YEAR.

FIRST TERM.—Complete Mechanical drawing by instruments. In class. Four hours weekly.
Historical lessons in Ornamental design, (text Dresser)....1-5
Painting in oil. Broadhand painting from natural objects4-5

SECOND TERM.—Art History and Biography,.....1-10
Painting from Nature.....9-10

THIRD TERM.—Drawing and Shading from Human Form 1-5
Prescribed reading on Art....1-5
Portrait in oil,..... 3-5

FOURTH YEAR.

FIRST TERM.—The Renaissance in Painting in Italy, and the early methods and masters.1-5
Painting from Life and Nature.4-5

SECOND TERM.—Modern European Art.....1-10
Selection, Composition and Design. Animal and Landscape painting,.....9-10

THIRD TERM.—Contemporary Art. American Art and Artists,.....1-10
Painting from Nature. Animal, Landscape and Figure.....9-10

Full work demands the attendance of students three hours each day in the studio. The numeral 1 in the course of study stands for the complete work of a term, hence 1-5 stands for one-fifth of a term's work, etc.

Degree.—The degree of Bachelor of Painting, (B. P.,) will be given on the satisfactory completion of two years more of work than the above,—gaining special skill in portrait and landscape Painting in addition to such knowledge of Belles Lettres, including the French, German and Italian languages, as are provided for in the Letters Course.

APPLIANCES IN THE SCHOOL OF ART.

Conservatory of Music.—The Conservatory of Music is supplied with all the instruments required for successful work. There are in the institution ***eleven pianos,*** eight of which are used for instruction purposes. One of these is kept in the chapel for use in concerts and on other occasions in which a piano is needed. This is an instrument of more than ordinary power. Each of the three literary societies has a valuable piano, which helps to make music an interesting part of the weekly exercises. Students in the Conservatory are able, to a large extent, to practice on college instruments. Aside from these the institution is able to supply students to an almost unlimited extent with the use of pianos at private residences in immediate proximity to the college buildings.

The institution possesses ***two organs,*** one of these with all the appointments of a two-manual pipe organ.

The college will derive much benefit from the large pipe organ just placed in the new Methodist church.

The department possesses a Technicon for use of piano students in disciplining the muscles of the hand.

The Orchestra, composed of about ***fifty players,*** is supplied with all the variety of instruments employed for the production of orchestral music.

The Conservatory has a ***valuable musical library,*** which is

being enlarged as desirable publications make their appearance. It is also in receipt of the best musical papers and journals.

School of Painting.—This school occupies a suite of rooms in the North College building, both as working rooms and for art gallery. The gallery contains a large number of studies covering a great variety of subjects. There are also many very ***fine imported studies***—copies from celebrated painters—which represent the various schools of art. These afford the student a fine opportunity to study and compare the various methods of conducting art work. The department keeps on hand a large supply of easels of uniform pattern, with material, stands, etc., for the use of students. A ***complete set of models*** for drawing, consisting of cubes, cones, etc., are provided for use; also models of different parts of the human figure. The art room is supplied with a somewhat extensive ***collection of heads and busts*** of distinguished men of the past.

Complete provision has been recently made for study of ***Decorative Art.***

GENERAL STATEMENTS.

Closing Examinations.

1. All students must be present at examinations and the closing recitations of the term, or no credit will be given for the work pursued.

2. Students absenting themselves from the closing or examination work, will not, unless such absence was caused by sickness or other unavoidable conditions, be allowed to take the omitted examinations until they occur in regular order with the next class.

3. All conditions must be removed within a year from the date of the examination, or else the student will be marked Not Passed, thus requiring that the work be taken over again in class.

4. Work marked ***Incomplete,*** must be completed within a year, if credit is to be allowed.

5. No credit will be granted students for work on which

they are marked Not Passed, until they have satisfactorily pursued the same again in some regular class.

Attendance.

1. Persons coming to Albion for the purpose of entering any department of the College are subject to its government ***from the time of their arrival;*** and whenever a student has entered College he is under its jurisdiction until his connection is formally closed by graduation or otherwise.

2. Students who are ***not in their places*** at the opening of the term, if minors, must present written excuse from their parents or guardians for their delay; and if not minors, must give a satisfactory excuse for such delay.

3. ***Uninterrupted Attendance*** upon college duties during term time is required. Under ordinary circumstances visiting friends or home is discouraged.

4. No student is permitted to leave town without the President's permission.

5. ***All delinquencies,*** such as tardiness, deficiency, offenses against good order in the recitation rooms, are dealt with by the Professors of the Departments. Flagrant cases are reported to the President or Faculty.

6 ***Students*** who at the close of a term do not expect or desire to remain the following term *must apply for leave of absence or honorable dismission* from the Institution. Unless dismissed or excused they are ***subject to the regulations and government of the College.*** *Unexcused absence works forfeiture of privileges* heretofore gained by enrollment or matriculation.

RULES AND REGULATIONS.

Only such requirements of the college as relate to good order and wholesome discipline are here presented. Indeed the great body of college laws must be unwritten. They need not and cannot be put on the printed page. As to the prohibition of the different forms of vice, there need be no formal statement as no reputable college would allow immorality.

1. ***All students*** are expected to devote to study the hours designated for that purpose, and at their own rooms. Young men who employ the evening for *other purposes than study* violate the order and regulations of the Institution, and render themselves liable to discipline.

2. ***Young ladies*** may not attend lectures, concerts, or any public or private entertainments, or absent themselves from their rooms in the evening, except on special permission granted by the President.

3. ***Young ladies*** are allowed to receive calls from gentlemen only to a *limited extent* and in *public rooms* occupied by the family there residing. All calls must be made during the *early part of the evening*, and in no case should continue after 9.00 p. m.

4. ***Young ladies*** are not permitted to absent themselves from their rooms in the evening except on special permission granted by the President.

5. ***Calls on students,*** whether by students or other persons, must not be made at such hours, or for so long a time, as to *interfere with college duties.*

6. ***Students are not allowed*** to board or room at any place the Faculty disapprove, or any longer at a place than they approve, ***nor to change*** their place of boarding or rooming during the term without the consent of the President.

7. ***Young ladies and gentlemen,*** unless they are brothers and sisters, will not be allowed to occupy rooms in the same house.

8. ***No student*** is allowed during term time to engage in teaching, or to recite in other than the classes of the Institution, except by permission of the Faculty.

9. ***No student*** can drop any study without the consent of the President and Instructor, nor change any of his studies after the second week of the term except for very cogent reasons.

10. ***All unexcused delinquencies*** are registered. Students may be dismissed from college for absence from their classes or for other delinquencies, They may indeed be suspended

or dismissed from the Institution whenever, in the judgment of the Faculty, the interests of the school require it. A single case of willful neglect of duty is sufficient reason for discipline, as it is an infraction of the order and requirements of the Institution.

11. Before their delivery in public ***all literary exercises*** of students must be submitted to the Professor of Rhetoric or some other member of the Faculty.

12. ***No person*** may be invited by the students to deliver an address in connection with the Institution except by permission of the President.

13. Entering the institution is a pledge on the part of the student faithfully and conscientiously to obey the rules and regulations.

SPECIAL PRIVILEGES.

Religious.—On each school day at 9 a. m., religious services are held in the College Chapel, which all the students are required to attend.

On Sunday morning they are required to attend public worship at such church as they or their parents or guardians may select, and each student is expected to be uniform in his attendance at the church of his choice.

Every student also is required to attend all Sunday afternoon lectures given by the President or other persons secured by him. The lectures are upon some moral or religious theme.

Attendance upon the following is optional. On Thursday evening is held the general weekly prayer-meeting, which, though a voluntary service, is attended by a majority of students. On Tuesday evening there is a church class, composed of students, and at present is led by Professor S. D. Barr. At 9 a. m., on Sabbath there are meetings for the study of the Bible. In the afternoon there are students' gospel meetings.

Albion College is not a theological school; it is not its office to impart instruction distinctively on theological and ecclesiastical subjects. But believing in morality we must believe in

religion. No institution of learning will have a healthy moral atmosphere which is not pervaded by a christian spirit. To guard young men from the vices so common in every community, there must be a distinct religious sentiment and a positive spiritual atmosphere from which immorality is shut out, and which serves as an inspiration to pure thoughts and a correct life. But while Albion College does not teach theology, it does teach God as the Creator of all things, as a personal providence to every human being, as the author of the Bible, and who in Christ the Redeemer of the world, is ready to save every one who in penitence and faith will come unto him for everlasting life. While the school is not sectarian, and does not interfere with the denominational preferences of any student, and while it does not aim to make educated ministers any more than educated lawyers or physicians or business men, it does hold that God has rights in every lecture-room, that he must not be shut out from any department of instruction, and that truth can have no foundation only as it rests finally on the being and creative power of God. The authorities of the college hold that character is more than scholarship, and to be perfect the character must be christian. The aim is to supply the world with educated christian men and women for all the professions, for all departments of legitimate business, and for all proper relations in life.

Societies.—There are three Literary societies connected with the Institution: The *Erosophian Society*, *the Eclectic and Athenaedes Society*, and the *Philozetian Society*. The two former are college societies, the latter is connected with the preparatory school. Students in preparatory classes may join the *Philozetian Society* and remain in the same until they reach the Freshman Year. They are not at liberty to become members of either of the regular college societies before they complete the studies of the first three preparatory years.

The *Missionary Society* is organized for the promotion of the missionary spirit.

There are *two Christian Associations*—the Y. M. C. A. and the Y. W. C. A.

A *Reading Circle* has been organized in connection with the Conservatory of Music.

The *Ladies' Library Association* carries forward its work by the employment of eminent lecturers, the profits accruing being devoted to the purchase of books for the library. In connection with a very superior course of lectures the past year, it cleared $200.

A college paper called the *Pleiad* is published by a society or stock company organized for that purpose.

The Literary Societies have fitted up *elegant apartments* in which to hold their weekly meetings.

No literary or other society can exist in connection with the Institution unless by permission granted after the Constitution and By-Laws of the same shall have been submitted to the Faculty for examination, and shall have received their approval. Whenever the workings of any society shall be deemed prejudicial to the interests of the Institution, such society will be dissolved.

The ***times and places*** of the meetings of societies will be subject to regulation by the Faculty; and all meetings, whether of regular societies, or of any other body of students, shall be open for the attendance of any member of the Faculty or of the Board of Trustees.

No society in the College may ***invite any lecturer to address them*** in public until the name of the proposed lecturer shall have been laid before the President, and he shall have given permission to extend the invitation.

EXPENSES IN THE VARIOUS DEPARMENTS OF THE INSTITUTION.

Rates of Board.—The Institution does not ***conduct a boarding hall,*** but the students are able to make arrangements for board at figures as moderate as college boarding halls ever charge, and, as a rule, obtain ***board of a better quality*** than is ordinarily

procured on the old plan. ***Table board*** in private families usually costs from $2.25 to $2.50 a week. A large number of students organize ***boarding clubs,*** enabling them to reduce the rate to $2 or $1.75 a week. This is now quite a popular method of providing for board. There are other students who ***board themselves,*** expending perhaps one-half the cost of club board, and some even less. Furnished rooms can be rented usually at ***fifty*** or ***seventy-five cents a week*** for each student.

The following is a schedule of charges made by the Institution. It will be seen that for ***literary work*** there is ***no tuition.***

PREPARATORY SCHOOL AND ACADEMIC DEPARTMENT.

Tuition	Free
Incidental fee, per term	$ 5 00

COLLEGE.

Matriculation fee, paid but once	5 00
Tuition	Free
Incidental fee, per term	5 00
Graduation fee	5 00
Students in chemistry deposit at the opening of the term, to cover cost of material used	4 00

If balance to their credit at the end of the term, it is refunded.

Students using the microscope pay a small rent.

CONSERVATORY OF MUSIC.

Matriculation	Free
Instruction in Chorus Class	Free
Instruction in rudiments of vocal music, per term	$ 1 00
Incidental fee, per term	2 50
Tuition, in class of three—on piano or organ	12 00
Tuition, in class of two—on piano or organ	15 00
Tuition, private lessons—on piano or organ	20 00

Tuition in Harmony—once a week	4 00
Voice culture—class of two	5 00
Voice culture—private lessons	8 00
Voice culture—private lessons—half hour	5 00
Instruction on violin, cello, etc	9 00
Instruction on violin, cello, etc.—half hour	5 00
Instruction on cornet, clarionet, flute, guitar, etc	6 00
Membership in the Orchestra	Free
Membership in the Band	Free
Use of piano or organ—per hour, for term	2 00
Graduating Diploma	3 00

When literary studies are taken in connection with music, the same incidental fee is charged as in the college.

It will be seen that ***class rates are much cheaper than private lessons,*** and until the student reaches the graduation year the instruction thus received is as profitable as by private lessons.

To students receiving instruction on the piano or organ who have not completed the Second Grade, there is a reduction of 25 per cent on the above rates.

SCHOOL OF PAINTING.

Incidental fee, per term	$ 2 50
Tuition in oil painting, water color, India ink, etc., per term	20 00
Single lessons	50
China painting or other purely decorative work—Single lessons	60

☞ ***In no case does*** the incidental fee exceed $5.00 per term, though the student may be pursuing ***studies in several departments*** at the same time.

It will also be seen that ***no tuition*** is charged for instruction in literary studies, tuition being required only for instruction in music, painting, commercial studies or elocution.

The matriculation and graduating fees are only one-half as much as charged by many institutions.

It will also be perceived that the charges for instruction in

music depend on the class to which the student belongs, and the amount of instruction received. The schedule of prices ranges all the way from $4 to $20 or $30 a term. It is at the *option of the student.*

COMMERCIAL DEPARTMENT--SHORTHAND, ETC.

Tuition, full course, including all studies, except Typewriting and Shorthand :

First term, in advance	$20 00
Second term, in advance	17 50
Third term, in advance	12 50

Besides the regular course there will be classes to accommodate those from other departments who wish to take special work in this department, as follows :

Book-keeping, per term, five hours a week	$ 5 00
Book-keeping, per term, three hours a week	4 00
Penmanship, per term, five hours a week	3 00
Penmanship, per term, three hours a week	2 50
Commercial Arithmetic, five hours a week	2 50
Commercial Law, three hours a week	2 00
Shorthand and Typewriting, per term	15 00

ELOCUTION.

Tuition, class and private,

Class—Per term,	4 00
Private—Per term, ten weeks course	16 00

Arrangements for taking more lessons at the same rates can be made at the beginning of each term.

NOTES AND DISCUSSIONS.

NOTES.

Mind is the guage and measure of manhood.

Life is worth immeasurably more than money, and should be treated as above all price.

The value of life consists of the mental qualities with which we are endowed.

He alone achieves success who most fully develops his nature up to that state of perfection for which it was created.

The value of a future grows out of the opportunities it affords for progress.

Education is "leading out," converting potentiality into actuality.

The educated man is the full man.

All education is self-education, subjectively wrought out by the employment of our powers.

Colleges do not educate, they supply conditions for education.

Education should produce harmony, not mar harmony.

The mind consists of intellect, sensibility and will; and these should all be trained together that the harmony of our natures be not impaired.

The specific end of the education of the intellect is acute mental vision, logical powers, and the gaining of the habit of continuous, clear, broad and deep thinking.

Convictions of duty should keep pace with the enlargement of our faculties.

Moral training should be co-ordinate with the intellectual, as thus only the best manhood is reached.

The right study of mental science develops the habit of introspection, and discipline the powers of reflection.

To gain the ability to clearly note and discriminate mental phenomena is essential to the best scholarship.

The study of metaphysics sharpens or gives prominence to the intuitions.

The study of logic makes us more accurate and vigorous reasoners.

The study of spiritual realities leads into that domain of truth which is most thoroughly refining and elevating.

Historic study is second only to travel in its fitness to free the mind from petty prejudices, narrowness, and dogmatism.

The great stress laid on historic study in our day is due not so much to an increased interest in the study for its own sake, as to a better recognition of the fact that it furnishes the only means through which we can attain to a sound and fruitful knowledge of the forces and laws which prevail in human society.

The study of Politics, Political Economy, and other social sciences by the historic method leads to but few neatly turned statements of principles; but, if its formulæ are clumsier, they are also more trustworthy, for they take into account the infinite diversity of actual affairs.

In the study of history too much philosophy leaves the student furnished with a stock of bright, but crude, and inaccurate generalizations; while too great attention to details stuffs

the memory with a mass of facts, unassorted, unrelated, and so not truly known.

The study of the physicial sciences develops the powers of observation in a pre-eminent degree. The scientific habit gives penetration and discrimination to sight.

Nature is a storehouse of truth, but the utility of knowledge consists not less, subjectively, in the culture of mind than, objectively, in its influence upon the arts.

Though the child apprehends the realities of the external world more readily than the realities of mind, yet the view is partial and superficial until the principles which govern nature are brought up from the depths where they dwell.

Nature is an object lesson of thought, but to read it we must get down into its heart. Nothing that lies wholly on the surface is worthy of storage in the mind.

Common Arithmetic, since it is more frequently used and by more persons than any other branch of Mathematics, and is the foundation for all others, should be taught and studied most thoroughly, and till its principles and processes have found permanent lodgment in the mind.

Algebra gives a language by which we concisely state the known relations subsisting between what is known and the unknown, and a means of investigation by which we thus discover more occult and important relations, and ascertain the values of what was before unknown.

Geometry teaches us how to compare like things existing in space; how to determine the magnitudes of the elementary and simpler forms, and how to measure, by a close approximation, the diameter of the earth and the extent of its surface.

Trigonometry enables us to measure the paths that lead from

the earth to the sun, the moon and the stars, and to tell, when far out on the trackless ocean, from a few observations upon the stars, our distance and direction from the desired port.

Analytic Geometry and the Calculus furnish us a means of research by which we solve the most difficult problems in Physics and Astronomy.

It is impossible to rightly estimate the extent to which Mathematics energizes and disciplines the mind to grasp and know hidden things, and to ascertain and measure forms and forces. It specially cultivates the power of attention and the ability of continuous thought. It deals with absolute certainties, and holds all science within its grasp.

The poets of all ages can do but little more than retouch the lyre that was strung for them by the bards of Greece.

The laws of language and of thought in Grammar and in Logic are a part of our rich inheritance through the classic tongues.

Macaulay's declaration, "It may be doubted whether any compositions, which have ever been produced in the world, are equally perfect, in their kind, with the great Athenian Orations," may, with equal positiveness, be applied to the entire field of Rhetorical production.

The spirit of law and the genius of government are enthroned in the Roman nature and literature.

The deepest insight into and the most delicate sympathy with the True, the Beautiful, and the Good, was the endowment of the classic Greek. And it is pertinent to add to this from Macauley "There seems to be every reason to believe that, in general intelligence, the Anthenian populace far surpassed the lower orders of any community that ever existed."

The Italian Renaissance is a splendid example of the intellectual stimulus inherent in the Ancient Classics. The mean-

ing of this fact cannot be mistaken The Classical Languages were made to share with Christianity the duty of disciplining the mind and heart of the human race.

Supreme among all educational forces stands that of fellowship with the most highly endowed natures.

In enriching language we enrich thought; and in the study language we not only gain a knowledge of the instrument of thought, but extend the range of thought, as mental operations are carried forward largely through language.

The study of the languages sharpens the intellect, contributes to the delicacy of the operations of mind, and trains the logical powers. He would be sadly misguided who should seek to gain the highest culture without the devotion of considerable time to the languages.

Art begins where geometry ends.— *William Page.*

All true education has in it an element of art education.

All education is a process of reducing things to law and order; and even that most delicate operation of disciplining the hand and eye, training the understanding, and developing the powers of the imagination must be conducted with due regard to subordination of the immature to the mature mind, or art study will become lawless and experimental.— *Walter Smith.*

The art language in painting as well as in poetry ***can be taught,*** it is the ***use*** of that language that determines the artist or poet.

"Art Study, besides having a tangible value in its relation to manufactures, is designed to promote improvement in taste; and the principal of an Art School, whilst he may be very merciful towards artistic imperfections, cannot be too severe in his standard of good taste, nor can he apply it too stringently to the students under his charge."— *Walter Smith.*

Music is at once the product of feeling and knowledge, for it requires from its disciples, composers, and performers alike not only talent and enthusiasm, but also that knowledge and perception which are the result of protracted study and reflection. —*Berlioz.*

As the study of geometry trains the intellect in the abstract, so the study of music trains the emotions in the abstract.

To the true artist music should be a necessity and not merely an occupation; he should not manufacture music, he should live in it.—*Robert Franz.*

The person who is unacquainted with the best things among modern literary productions is looked upon as uncultivated. We should be at least as advanced as this in music.—*Schumann.*

None of the other arts is encumbered with so many prejudices as music. Though accessible to every human being its right position in the family of arts, is, in many cases, underrated, its philosophical and æsthetical meaning entirely overlooked or not understood at all. About none of the other arts has so much nonsense been written as about music.—*Ritter.*

If our art is not to sink entirely to the level of trade, commerce and fashion, the training for it must be complete, intelligent and really artistic.—*Marx.*

Every person has a lead with which he attempts to measure the depth of art. The string of some is long, that of others is very short; yet each thinks he has reached the bottom, while in reality art is as a boundless deep, that none have as yet fully explored, and probably none ever will. Art is endless.—*Schopenhauer.*

O music, thou who bringest the receding waves of eternity nearer to the weary heart of man, as he stands upon the shore and longs to cross over, art thou the evening breeze of this life, or the morning air of the future?—*Jean Paul Richter.*

"Learn all there is to learn, and then choose your own path." —*Handel.*

"If you allow yourself to rest satisfied with present attainments, however respectable they may be, your mental garments will soon look very thread-bare."—*F. W. Tilton.*

"The intellectual faculty is a goodly field, capable of great improvement, and it is the worst husbandry in the world to sow it with trifles or impertinences."—*Str Mathew Hale.*

The unconscious injustice often done to the pupil by telling too much, and so robbing him of the privilege of finding out for himself, is proven by his weakness when his powers are called to any test. The instructor, will often find his tact and prudence called into exercise more for the purpose of reserving instruction than for imparting it."—*Samuel G. Love.*

DISCUSSIONS.

EDUCATION AND CITIZENSHIP.

One of the greatest perils now threatening this republic is the illiteracy which so largely prevails in some portions of the Union. In despotic countries it is not a serious evil, so long as there is vigor in the government. Indeed, despotism is safe only where the people are too ignorant to feel the need of freedom or to assert their rights. In this country we have universal suffrage. Each man has civil rights and civil responsibilities. The vote of an ignorant man goes for as much as the vote of the most eminent scholar in the land. Yet to entrust to men who cannot read the ballots they cast, the decision, practically, of the great problems of government is supreme folly. But this class has been politically enfranchised and they will never consent to disfranchisement. The best thing to do, therefore, and the only thing to do, is, if possible, to lessen the percentage of illiteracy. This must be secured, largely, through the public schools. The entire mass of the American people should possess, at least a common school education.

It is apparent that the policy of governments is determined by the few. Unfortunately these persons are, to a great extent, partisan politicians. Patriotism is in danger of being made secondary to political ambition. The safeguard of the republic must consist in the general intelligence and broad scholarship of the people. As you increase the proportion of learned men to the offices to be filled, not only will the offices be filled with a more capable class, but the percentage of scholars who have no desire for office will become greater, and greater difficulties will arise in the way of designing men prostituting the interests of the government to ambitious purposes. As you educate the American people there will be less of partisanship, more of

independence of opinion, a more intelligent scrutiny of affairs, and less power among demagogues.

Every man authorized to cast a ballot should certainly understand the principles of the government whose affairs he seeks to control or in any way influence. All men cannot be constitutional lawyers. They can scarcely be expected to be familiar with the profound reasons underlying all the provisions of our organic law, and the relations of the same to the systems of government in other civilized lands. They are too busy, many of them, in earning bread for daily support, to take the time for exhaustive study of the foundations of our national life. Yet they hold political power in their hands. The exercise of power without knowledge is full of peril. Hence our obligations to the State cannot be met except by special preparation through study of the principles embodied in our organic life. Before money-making, before the interests of any trade or industry, should be placed the welfare of the government and the general good of the public.

There is more meaning couched in the word citizenship than in any term designating a profession or business occupation. It is more to be a citizen than to be a merchant, a farmer, a mechanic, a physician or a lawyer. It carries with it large responsibilities, with the need of intelligence of high order. At the present time Europe is sending swarms of her people to this country. They have been reared under governments that are monarchical and some of them despotic. The education which they have received is ingrained in their being, or if not, under a reactionary spirit they have become hostile to all civil restraints. Unaccustomed to the liberty we enjoy, they do not know how to use it. In most cases entertaining very extravagant notions of freedom in this land, the individualism of the citizen being construed to be unrestrained license, the red flag is a natural symbol of the fiery, untamed spirit they bring with them. How can this tide be met and the dangers be averted? It can only be done by the better education of our own people. If the right spirit here prevails, growing out

of a rational view and understanding of the office and nature of government, this influx from foreign lands will be powerless for harm. The inspiration for all of this must come largely from the colleges of the country. Much attention should be given to political science, constitutional history and the problems of social science. The time usually devoted to these subjects is far from being sufficient. Higher institutions should come much nearer to the life of the people than they generally do. Some of the lines of work should relate to the themes which are stirring the public heart. Why may not the themes on which congress is employed—the more important ones—or the questions which are engaging the attention of the British Parliament or other great National Bodies, be studied up, and intelligent opinions formed? In college work we must not neglect every day affairs. Culture is the main thing, but it can be gained not less by the investigation of living questions than of branches of study which do not bear directly on the interests of the race in civil and social affairs. Our experience has demonstrated it to be true that the spirit awakened by research movements in the field of political and social science, infuses new and a more potent life into a college, helping all departments of work. At Albion college this has been very noticeable.

The problem to be solved by the United States is both important and difficult. This western hemisphere is, and must be, a reservoir for all the nations of the earth. The crowded east—crowded and in some respects effete—will continue to send her overflowing population to these shores. The safety of this country depends upon the maintenance of a life wholly unlike the civilization of the lands from which these millions come. They must be Americanized by us. If this be not done, we shall lose our distinctive characteristics, and the beneficent mission of this land will be at an end. To avoid this last named calamity, we must put the most vigorous elements into our civilization. Illiteracy must be swept away. The Christian Sabbath must be a sacred day. Our colleges must

be more amply endowed, and all of them must get nearer to the channels in which the daily life of the public is flowing. We must give greater intensity to the educational spirit of the people Our national life must be positive—positive because of its intelligence; positive in its transforming power over the non-American elements which find their way into our land; positive in the better understanding on the part of the masses, of the fundamental principles of free republican government. These are facts which statesmen should keep prominently in sight; they are facts which both patriotism and philanthropy should push to the front. To be an American citizen should be the greatest honor a man can crave. This can be realized only by stirring up our entire people to a realization of the benefits of education, making the school house and college with the christian church, to stand in the most conspicuous place among the institutions of this land.

EDUCATION AND STATESMANSHIP.

The foregoing discussion of the dependence of rational citizenship on education suggests still further the pre-eminent need of higher education for the successful discharge of the functions of statesmanship. The duty of the statesman is to provide for the best condition of citizenship.

Politics and statesmanship must not be regarded as identical. The life of the statesman is spent in the midst of political affairs, but his aims, methods, and work are as foreign to the schemes of the partisan as light is to darkness. There is a political side to every nation. Sovereignty is political, and men come into possession of power through political agencies. In some sense of the word every citizen should be a political factor of the government. They who have a right to vote should exercise that right, assuming responsibilities which are lodged in citizenship. But the spirit of politics is today very generally the breath of the demagogue. There is a covering up of truth, an unfairness in argument, an appealing to the passions, a seeking of advantage for partisan ends, an eager scrambling for party spoils, so depraved in the moral tone as to fulfill the motto that "all is fair in politics." All of this is true and much more, growing out of the selfish motives that stir the heart of the parties which bid for the control of the government. Power, this is the watchword, and it must be gained at all hazards. Too commonly are principles trampled in the dust—anything to carry the election. It is the triumph of today, which triumph has no other significance than partisan success.

Statesmanship is a wise planning for the success of government, laying the foundations of the state in truth and righteousness. It starts with the question, what is right? Government is organized social power, primarily established for defense, but embracing co-operative agencies for the good of the

entire body of citizens. The problem before the statesman is to determine how the relations and interests of men can be most equitably conserved. This means protection of rights, exact and equal justice, the largest liberty, consistent with safety, for the employment of the powers of the individual, the carrying forward by the state of needed enterprises which the citizen alone cannot accomplish; and the putting of the greatest vigor in the government so that it shall stand on an enduring basis and possess the largest measure of efficiency in the discharge of its functions. The ultimate aim of the statesman therefore is not partisan triumph, but the triumph of right and truth. His work does not end in the shouts of victory on election night, but in the grand triumph of righteous law. He makes constitutions, he builds up the temple of justice, he puts underneath the state the omnipotence of truth, and into the hands of liberty the might of righteous law. He plans not for today, but for the long years of the future. In right there is permanency, in wrong there is weakness and death. Politics and ignorance often join hands, statesmanship and ignorance never.

In considering the question of education and statesmanship he cannot fail to be impressed with the fact that no man is fitted to legislate for the people who has not profoundly studied the philosophy of history. What are the lessons of history? What has contributed to the civilization of the ages of the past? Under what systems of government have the people been most prosperous and happy? How have rights been wrested from the hand of despotism? What do we find to be the forces of strength in the state under different forms of organization? What is the verdict of history on the ability of the people to govern themselves? Nothing is more marked than the instability of government in all the ages of the world. Why is this? Can the causes be found? Can the state be founded on such principles and be managed in such a way as to eliminate weakness and ensure permanency? There are two ways of reading history. In one way the mind is simply stored

with events. It becomes a lumber-room, a sort of ware-house. The fuller it is the more clogged it becomes. The events have no meaning, they are not made to be in relation with the working out of problems of civilization. The other method consists of the determination of the forces out of which events spring. It is the *why* of history, which is an explanation of the *what.* In this surely there are lessons of instruction of which the statesman cannot afford to be in ignorance. He needs to be familiar with the history of all lands under all forms of government and in all ages. He needs to trace the rise and fall of the nations, to find the elements of growth and of decay. He should give special attention to the two phases of history referred to in the preceding sentence. How is it that the life of a nation wanes? What caused the overthrow of Rome, taking this as an example? Have all the nations of the past perished under the same forces of dissolution? If not what special influences have operated in each case? Again, what principles and agencies were at work in building up the mighty kingdoms of the past and the great governments of today? And are all the great governments of the present time strong, or are the pillars of state tottering so that their downfall is imminent? What are the weak points in the governments of the old world? Is every timber sound in the temple of American civilization and American statehood? These and many others are vital questions which the statesman ought to be able to answer.

We proceed one step farther and say, that the statesman must be an earnest and careful student of social and political science. One of the alarming facts in our American life is the prevalence of illiteracy in this country. To put the ballot in the hands of a man who cannot read the constitution of the United States, who has never read an article on any political question, who cannot even read the ballot he casts is a burlesque on government by the people; more than this it is a crime against humanity itself. We lost a golden opportunity when the occasion for reconstruction of the states of this Union occurred in not insisting on some measure of intelligence as con-

ditional to rights of franchise. For its own protection the state should make it to be the interest of every citizen to gain at least a common school education. There are great questions of currency, taxation, protection of home industries, prevention of traffic in intoxicating drinks, marriage laws, divorce, and many others with which the legislator has to do. These are not simple problems, they include elements to which a proper value cannot easily be given. The subject of currency has been a puzzling one with us. To get a currency that flows freely, to put it on a foundation that will not give way, protecting the stockholder and billholder both; to make it general so there shall be no depreciation in any part of the country; to guard against fluctuations and ensure permanency, to secure these conditions requires a very thorough study of the whole subject. A quarter of a century ago we hit upon a wise scheme in the organization of our national banks, but as the public debt is fading away, and the foundation will crumble from beneath these banks it is a serious question as to what policy will be safe and effective.

We are in the midst of a national agitation on the tariff question. No man ought ever to think of taking a seat in congress or voting for members of congress without having studied this subject with great care and an honest purpose to determine the true policy of government. It is not enough to read the newspaper articles of a single party and listen to campaign speeches; there should be a dispassionate comparison of views, a looking up of authorities in every land, and a testing of the theories adduced by the history of the different countries where they have been tried.

Social science is receiving more attention than formerly. Our relations one to the other are so numerous, and effect so many interests that the problems which arise reach out into every domain of life. The education of the masses, prison discipline, intemperance, rights of the press, public charities, marriage, divorce—we might suggest themes almost without limit which legislation must reach and largely control. No

college performs its work well that does not embrace these questions in the scope of its studies.

Statesmanship has to do with material industries. Laws relate largely to property. All industries rest on principles of science. A statesman must be a scientist, broadly so as to be fitted to meet his responsibilities. I know not how a man can accomplish all the public have a right to demand of him in the halls of legislation who has not a love of scholarship, who has not felt its need sufficiently to inspire him to make as much preparation as can be gained in a four years college course. The preparation for college and the mental application necessary to complete the under-graduate work ought to bring forth much valuable fruit. It ought to develop habits of study, power of attention, intense love of truth, broad views of knowledge, acumen of intellect, power of thought, a philosophic spirit, an abhorrence of everything superficial, soundness of judgment and efficiency in execution in all great fields of intellectual effort. And who needs all of this more than the statesman?

COLLEGE ATHLETICS.

Athletic associations exist in nearly every prominent college and university. The students regard them as indispensable. During the summer season athletic sports are kept up with as much regularity as the work of the class and lecture room. Indeed an institution of learning in which no provision for such sports is made is regarded as lacking in a very important factor of college life, and is quite likely to be shunned by many young men who propose to enter some higher school of learning. The ideal college today is not one in which the whole time is devoted to literary pursuits. The physical has a large place. It is evident the whole subject should receive careful consideration.

It is not an uncommon thing for the health of students to break down before the college course is completed. This is caused usually not by overstudy but by insufficient physical exercise. It rarely happens that mental labor impairs the health. Vigorous intellectual work is healthful. If however the laws of the physical being are disregarded, as by non-use of the muscles of the body, the health is quite sure to suffer. No one will question the theory that would prescribe for every student daily physical exercise. But it is not enough to say that recreation should not be neglected during student life; there is much more in this subject than is couched in such an indefinite expression. Everybody will concede the force of the following points. Recreation should be regular and systematic. This is as certainly true as that regularity should be observed in partaking of food or sleep. To devote several days to continuous study and then take violent, and perhaps, exhaustive exercise, is quite sure to be harmful. Again, exercise that is social is much more valuable than if taken by oneself alone. There should be a resting of the mind while the muscles are employed. The nerves are not adequate to

meet the demands of the mind and body when both are calling for the largest supply. But more than this, the mind exerts a decided influence over the body. If interested and cheerful there is a nervous exhilaration which keeps the physical system in better running order. Exercise with depressed spirits, or with nothing to enliven the mind, is productive of the smallest amount of good. In colleges therefore recreation should be secured, if possible, at somewhat regular and frequent intervals, under conditions that are pleasant; resting the mind, not by mental inactivity but by social stimulus, a flow of good feeling which will carry away all the burdens of hard study.

College athletics in these days are usually conducted through associations which operate under rigid rules, that is by methods which are invariable. The following results are obtained: A good deal of interest is awakened which often becomes absorbing. Skill is sought, so that in some directions there is physical training. The exercise is commonly taken at regular and frequent intervals of time. There is mental exhilaration, as much as the student needs. All of this has a natural tendency to promote health. In addition to the foregoing it not unfrequently happens that the exercise is so violent as to exceed the wants of the body. Harm is often done. The interest awakened in many instances draws the mind of the student from his studies, leading him to neglect the very work for which he has entered college. The culture of the mind is made secondary to the training of the body, and the years spent at college become a failure.

College athletics wisely employed are a benefit, but they need to be kept in their place, subordinate to study, not a substitute for study. While the authorities may properly endorse them, and even encourage them, they should not allow them to usurp the chief place in the college. And they should be scrupulously guarded from evils which are liable to arise.

METHODS IN THE TEACHING OF PHYSICS.

PROFESSOR CHARLES E. BARR, A. M.

Have methods. Don't teach in a hap-hazard, hit or miss kind of a way. Having a fundamental truth, stick to it, look at it from every side, study it in itself and in its relations to others. No truth stands alone. All truths are correlated, and by linking them together, each assists in the remembrance and application of others. A truth, alone, is like a grain of sand, if undisturbed, it stays where it is placed, but a chance breeze may too easily dislodge it and waft it away to be forever lost. Truths properly appreciated are like rough burrs. Displaced, they take fresh hold; displaced again, other hooks catch in and thus they catch and pull and catch again, to be dislodged only by persistent effort. Thus all subjects should be so linked together as to have roots and fibres that twist and turn throughout the whole domain of truth.

To secure this result, present a subject methodically. Don't begin at the end and slowly unravel your way back to the beginning, but starting at the proper point, *build* up as you progress.

Don't be enslaved by a text-book. Free yourself from it by mastering it and many others. A pupil respects a teacher who needs no book into which he may slyly glance now and then, to satisfy some doubt. *Know* what you must teach. If your memory is treacherous, use a few notes to guide you. In this way you can perhaps best guard against the chance omission of a topic. The freedom thus obtained enables the teacher to devote his full time and attention to the development of his thought, and he far less frequently finds his interest flag, and thus holds well in hand the interest of his pupils. To interest them you must interest yourself.

Whenever occasion permits, experiment. After a time, experiments, in themselves, become a drudgery to the teacher—unless he studies them himself. A simple experiment, easily

performed, readily "explained" by any member of a class, may become to the teacher a golden key to unlock treasures undreamed of, beyond; but the pleasure of the teacher in seeing the effect of an experiment upon his class, their careful scrutiny and quick apprehension, is his chief reward. Don't be discouraged if you "have no apparatus." You have. The best apparatus that the teacher can use is found about him on every hand. Ransack your pockets;—you will find enough there for many a valuable experiment. The man who can't utilize what apparatus he has, and knock up more at a few moments' notice can't be made a teacher by any apparatus under the sun. He must make the apparatus ; the apparatus can't make him. For example, let us cite Atwood's machine for the study of gravity. The wonder and amazement that fills the pupil's mind at its array of finely lacquered wheels, electrical release and swinging pendulum, is only matched by his firm conviction that gravity is always and only manifested under such conditions. To us, the simplest apparatus, carefully pruned of all unnecessary parts, seems best. For the costly Atwood's machine we would substitute a six-foot, straight edged board, grooved on the edge, and an iron ball. Every one has seen a ball or a stone roll down hill, and our inclined plain is thus familiar, and by its very homeliness gains the confidence of the pupils at once. Set the board on edge, put a book under one end and then listen to the clock that beats steadily and uniformly upon the wall. At a given beat, let the ball start down the groove and have the class note where it is at the next beat. Repeat this several times and average the result. Measure it off on a piece of paper, and using this as a unit see how many times this unit the ball rolls from the second to the third, the third to the fourth beat. With slight allowance for friction, and careful attention to accuracy of measurement on the part of the class, this will yield good results. Then put two books under the board and note the increased unit. Increase again the slope of the plane, eventually bringing it to the vertical, when the ball falls freely.

Now, multiply the number of units as before derived by $\frac{1}{2}g$ and the laws of falling bodies stand revealed. By such means may any class be made to take a live interest in Physics. Thus taught, it is an attractive study, instead of, as too often made, hard, uninteresting drill and drudgery.

Reduce every subject to as few principles as possible and bring these up at all sorts of unexpected places and times and show their generality. The laws of machines are best taught by deriving them all from the general laws and making these the ultimate standard to which all must be reduced.

Make your teaching practical. Keep your eyes open and call the attention of the class constantly to applications of the truths of the lesson in everyday life. If a class has never noticed the expansion produced by heat, the question "Did you ever see a thermometer?" will teach a lesson they will not soon forget.

Be clear in statement and adapt your words to the comprehension of your hearers. Too much valuable time is lost in orcing the parallelogram of forces upon an elementary class. Lead them to see that the same force always produces the same effect, whether acting alone or in conjunction with others, and then, laying off the first force from the point of application. let the next act from the end of this, and so on, where the result, or practical effect will be found to equal motion from the point of application to the end of the last line.

In optics, the course of rays forming images and foci in the case of both mirrors and lenses often puzzles the student. Teach him how to apply the law that the angle of incidence equals the angle of reflection, and he will soon prove the matter for himself, so far as mirrors are concerned. A good plan for the construction of images in case of concave mirrors and convex lenses is to base it on the one principle, that parallel rays converge to the principal focus, and hence rays from the principal focus, after reflection or refraction, proceed in parallel lines. To do this, draw your lens, determine its focal distance, (equal to radius, perhaps) and then choose such rays

from the object as, first, move parallel to the axis, and, second, as would include both the point in the object and the focus. Prolong these in accordance with the principle laid down and at the place where rays from one point meet, will be formed its image. In convex mirrors and concave lenses, the same construction holds good, using the virtual foci. This, of course, neglects thickness of lenses and aberrations. An accurate result may be obtained in lenses, by construction based on the following statement of the law of refraction:—The sine of the angle of incidence, measured on a circle whose radius represents graphically the refractive index of the first medium equals the sine of the angle of refraction, measured on a circle whose radius represents the refractive index of the second medium. To construct:—Let a ray strike a surface at any angle, prolong it, unchanged in direction, and lay off on it the refractive index of the first medium. From the point of incidence as a center, draw an arc whose radius equals the refractive index of the second medium. From the first point laid off, draw a line parallel to the perpendicular to the surface, at the point of incidence, (i. e., parallel to the radius at that point,) and this will cut the arc in the path of the refracted ray.

By these and other such simple methods, may Physics be rescued from the limbo of "necessary evils," and placed where it belongs by right—as a most practical, useful and fascinating branch of science.

CULTURE AND POLITICS.

PROFESSOR F. M. TAYLOR, PH. D.

I. THE COMPARATIVE IMPOTENCE OF THE CULTURED CLASSES IN POLITICS.

In periods of great political interest like our quadrennial election no person interested in higher education can fail to remark that men of culture as such do not enjoy an amount of influence in political affairs corresponding to the expectations which the fact of their culture would seem to justify. It is, indeed, a stale common-place that the offices are not usually filled by such men. One frequently reads, even in high class journals, that college men never do anything after they get out of school; that the places of power are all filled by untrained or self-trained men This doubtless is a gross exaggeration; still there is in the statement sufficient truth to furnish material for serious reflection. By this it is not affirmed that the men of first-rate training who occupy places of power are fewer in proportion to their total number than the untrained, but only that the former are fewer in proportion to what men consider their legitimate claims. For it is not very unnatural to argue that the cultured classes, just because they are the cultured classes, should furnish not a share but all of the leaders. In certain fields this is already substantially true. It is almost wholly the case in the teacher's profession, slightly less so in the ministry, and perhaps less in the law and medicine. People naturally expect the same rule to hold in politics. They are, therefore, disappointed when this expectation is not fulfilled.

But if we are disappointed because culture fails to attain official ascendency, we must be still more surprised that it exercises so little influence on politics through personal inter-

course in private life. In most matters the public sentiment of any community is largely determined by what the people of culture think. In politics, however, the advocacy of any cause by such people is not unfrequently an obstacle to the success of that cause. In college and university towns, where the president and the faculty are deeply interested in the suppression of vicious places of resort, they find themselves obliged to move with the utmost caution lest they should prejudice the very interests they are trying to serve. If they are men of sound discretion, they usually keep in the back-ground, and accomplish their ends as far as possible through practical men on whose sagacity and good faith they can rely.

The political weakness of the cultured classes is also well illustrated by the history of those agitations which have largely enlisted the clerical and literary professions. The career of the Prohibition party is a case in point. Whatever may be its ultimate fate, it requires little courage to predict that it will have little chance of success till it sloughs off the leadership of the clergy and the ladies. Nor does this necessarily affirm that these leaders are incompetent, but only that the masses of voters do not and will not follow them. The free-trade agitation is another case in point. Even the most ardent protectionist must admit that the professors of political economy, who are the natural leaders in such a matter, are almost all on the side of free-trade. Such unanimity among professors of physiology on any matter in their department would long since have settled that question. But the professional advocacy of free-trade has made few converts. The majority of voters believe in protection as confidently as ever. In like manner the recent movement in favor of civil-service reform has been easily met by sneers at the kid-gloved character of its advocates. Of course there is no intention to affirm that the culture of the supporters of these movements has been the only or chief cause of their failure, but merely that it has been a real hindrance.

II. THE CAUSES WHICH EXPLAIN THAT IMPOTENCE.

Assuming, then, the truth of the proposition that the cul-

tured classes are comparatively impotent in practical politics, what are the causes which explain and the remedies which may be expected to mitigate, though they cannot wholly cure the disease?

1. THE SPIRIT OF DEMOCRACY.

It occurs to us, first, that the uninfluential position of culture belongs to democratic governments, as such. It is characteristic of men in general to feel jealous of the authority of those who are evidently their superiors in knowledge and training. This is a fact common to all ages. Pericles found it expedient to follow the standard of pronunciation accepted by the average Athenian of his day, and from his own practice he derived a maxim for orators generally. The Jacobins of '93 used the guillotine to express their hostility to superior culture as much as their hatred of monarchy. In republican America the democratic love of equality finds its best opportunity on election day. The average man who finds himself relegated to a more or less subordinate position in business, in society, and in the church, all the more energetically asserts his equality at almost the only place where it must pass unquestioned, that is, at the polls. He is therefore, particularly anxious, in casting his vote, not to seem to yield to the dictation of his natural superiors. We have, thus, in the mean passion of envy one cause of the political weakness of the cultured classes.

2. THE UNFITNESS OF MEN OF CULTURE FOR LEADERSHIP.

In the second place, this system which makes one's political position depend on the will of the masses is very apt to prove fatal to the aspirations of men of special culture, because the masses have perfectly honest doubts concerning the fitness of such men for the work of political leadership. The average voter thinks of the man of superior education as one whose opinion on some matter in his own specialty may be very valuable, but who, outside of that specialty, is hardly possessed of ordinary common-sense. "Much learning doth make thee mad," is the com-

ment of practical men in every age, and in every department. But especially in politics do men listen with impatience to the suggestions of scholars. That there is a considerable foundation for this way of looking at things is the verdict of history. Witness the career of Guizot in France; or mark the contrast between the efforts of the scholars to unify Germany in 1848, and the triumphant conclusion of the same task by Bismarck in 1870. The *doctrinaire* tendencies and the *doctrinaire* weaknesses of men of learning might be illustrated indefinitely from contemporaneous politics. Thus, the very extensive clerical opposition to all regulation of the liquor traffic as immoral argues a failure to comprehend the fundamental principle, that legislation must adapt itself to possibility as determined by the circumstances of time and place rather than to the principles of abstract ethics.

But the unfitness for political leadership of men who are merely learned is a proposition easily established from *a priori* considerations. Culture in the very nature of the case more or less disables men for successful activity in public life. This becomes evident when we contrast the characteristics needed in the practical politician with those naturally developed by a life of study. To begin with, politics is a realm of action. To its votary knowledge is a mere instrument. His business in life is to *do*. To the scholar, on the other hand, the end of existence is to *know*. This initial antithesis obtains throughout. The politician must have a creed. He must decide to favor some particular policy and devote himself to its realization. He must, therefore, be a partisan, an agitator. But the scholar as such can have no creed. Truth is the mistress that ever claims his first service. His most fondly cherished notions he must be ready to relinquish if the evidence goes against them. Trained to this in college life, he develops this characteristic more and more, if he specializes in any department, until he becomes almost morbid in his anxiety to be scientifically correct. A reputation for inconsistency has no terrors for him; but to have held a false opinion an hour after

it had been exploded fills him with shame and mortification. He is therefore commonly without a fixed policy, and more or less at the mercy of every new idea. Not so the man of affairs. He realizes that, after having honestly tried to choose the right side, it then becomes his duty to act as if he thought himself infallible. It is not impossible that his very stupidity will sometimes stand him in good stead. So McCarthy, after commenting on the inferior talents of Lord George Bentinck, declares that he "was only the more necessary to his party because he could honestly continue to believe in the old doctrines, no matter what political economy and hard facts could say to the contrary."

But, again, the scholar's excessive reverence for truth not only deprive him of that very essential element—a creed; it also develops in him a characteristic which is as inimical to success as a creed is necessary, that is, a hesitating judgment. Rather than risk being inacurate or inconsequential, he will let slip the golden moment for action. So Bagehot says, the philosopher "would be investigating while he should attack, inquiring while he should speak."

We have seen that the scholar in politics has too great a love for truth to be a really effective partisan, and that this same love for truth makes his judgment too hesitating for practical affairs where promptness is essential; it is further to be remarked that there is considerable warrant for the assertion that men of superior culture are apt to be mere theorists. The antithesis between theory and practice is doubtless somewhat artificial, that is, every one must have a more or less adequate theory; still it contains an element of truth. This element of truth is found in the very different estimates made by the philosopher and the man of affairs with regard to the value of a self-consistent theory. The philosopher, when confronted with the impossibility of constructing a theory which shall take into account every force in a complex field like human society, is inclined to consider obstreperous facts quite unimportant, if only he can save his theory. The practical man, on the other

hand, lets theory-making go by default, but clings to the facts. The philosophic student is especially liable to overlook particular, local, contingent elements, as if these would have no material effect on the result. The broad outline facts of human nature and society he comprehends well enough; and from these he reasons with reckless confidence; but of the power of minor forces, such as whim, prejudice, tradition, and a thousand and one others equally irrational, he has no adequate conception. Not so is it with the man of action. With these minor forces he has become so familiar that he instantly gauges their power. If he is unable to show their true relation to the whole system of things, he at least never makes the mistake of ignoring them. If he cannot explain the stone wall, he recognizes the fact that it is there, and proceeds to go round it. Theoretic consistency he is content to miss; success he must have at all hazards.

This failure to appreciate minor forces not only leads to theoretic one-sideness, it is also the parent of innumerable blunders in practice. Burchard's "Rum, Romanism and Rebellion," was a smart and effective alliteration; it was doubtless intended to help Mr. Blaine; but it illustrated again the scholar's inability to estimate the power of trifles. To know when to hold one's tongue is of the utmost importance to the politician. Undue frankness is the common fault of those with whom theoretic studies have predominated. According to Guizot, one of the chief causes of Hildebrand's failure to establish the temporal supremacy of the papacy was his untimely announcement of his program. The theory of the headship of the Spiritual looked so reasonable that a clear setting forth seemed the only thing necessary to its acceptance. The result showed that he had forgotten the power of "vested interests." He merely enabled them to say "Forewarned is forearmed." So in the last campaign it was certainly a mistake for the Third party leaders to announce frankly their determination to smash the Republican party; since this course served to arouse the waning loyalty of the only class of voters from whom they could hope to make any considerable gains.

Thus far we have spoken of the intellectual defects which disqualify the scholar for an active political life; but it is evident that study tends to develop still greater disqualifications of heart and will. To spend one's time discovering truth makes but little draft on the non intellectual part of the man; but to advocate and enforce the adoption of truth is a quite different matter. This latter, however, is just the business of those who are engaged in public life. The essence of the state is not intellect but will. The state is the community so organized that there may be a true general will. The business of those who govern is to ascertain, proclaim, and enforce the general will. This last is their most specific duty. In the last issue, therefore, government involves the resort to physical force. Evidently those who are not prepared to face the chance of an appeal to the final arbiter have no place in offices directly concerned with executive business. Even the duties of the ordinary citizen in the primaries or at the polls, demand the nerve that is not shaken by derisive howls, by fierce looks, or by menacing gestures. The great places call for equal courage, though of a higher sort. The sneers, the innuendo, the blackguardism, the personal insults, perpetrated by the party press,—most of all, the honest indignation of the masses of the people at some unpopular measure, these things try the stoutest heart. President Cleveland was the subject of much criticism for showing that the thrusts of his enemies had hurt. He had, however, a pretty respectable example in Washington, who bitterly complained that he had been abused "in such exagerated and indecent terms as could scarcely be applied to a Nero, a notorious defaulter, or even a common pickpocket." Now if men who have been all their lives in public offices are thus sensitive, surely there is little chance for those whom the retired pursuits of the scholar have rendered vastly more accessible to every form of abuse.

Up to this point we have spoken of the unfitness of the scholar for active participation in politics as the result of a certain incongruity between politics as such and intellectual

culture as such. It is hardly necessary to add that this divorce of the ideal and practical may easily be exaggerated by deficiencies in the system of culture. The timidity and sensitive shrinking from contact with the rougher classes, which is natural to the student, is of course greatly increased by the lack of physical training, particularly in manly sports. So again when college curricula had no room for courses in politics or economics, there was no occasion for surprise that college-bred men were ignorant and unpractical in these departments. The same fact explains the frequent lack of interest in practical questions and the common failure to recognize their importance. When a student's time for four years is given almost exclusively to the study of topics entirely removed from contemporaneous political life, he will of course care very little about that life. This is all the more certain to be the case if his instructors are really scholarly men, deeply absorbed in working out their respective fields. The stronger and more single-minded they are, the more will the student under their influence get into the way of thinking that there is nothing worthy of his thought except the particular department of study thus assiduously cultivated. Incidentally it is worthy of remark that the law common to many of the states, by virtue of which the student is practically disfranchised for four years, though proper enough from the stand-point of the commonwealth, is educationally very unfortunate, since it tends to increase the cloister-like character of student life. This is especially true, if a young man arrives at his majority while still in his course. In such case he is started off on his career as a fully-fledged citizen, under circumstances which, instead of impressing the full significance of his functions as an elector, tend rather to make him forget that he has arrived at the important stage in his life.

III. Some remedies.

Thus much for some of the causes which explain the political impotence of the cultured classes; what now is to be said as to the best remedies for a state of things which college men can scarcely fail to deplore.

1. MORE SUITABLE EDUCATION.

In the first place, every one will think of the system of culture as the natural place at which to begin reforms. Too often, colleges, instead of preparing men for real life, have turned them out at the close of the course less efficient in practical affairs than when they entered. Evidently enough this ought to be changed. Indeed, we may say that it has been changed, that much has already been done to bring the colleges into better accord with the conditions of modern life. First, in the matter of better physical training, though we are still a long way short of the ideal, yet something, certainly, has been accomplished. This, one may confidently say, is a matter of prime importance. A healthy body develops a more wholesome and sensible way of viewing life generally. More important still, this feature of modern college life secures that hardening of nerve and muscle so essential to fit onefor the ruder side of politics. In spite of the seeming brutality of Rugby foot-ball, one cannot help feeling that such play must be very effective in developing that courage and manliness, that general ruggedness of body and temper which, in the last issue, is necessary to assert the authority of the state. A tyrannous prince, and a tyrannous mob, alike respect the liberties of a people, not because they ought, but because they must. One of the most potent forces in securing the ascendency of the higher classes in England has been the ardent cultivation among them of rough, vigorous out-door sports. In that country, if any head-breaking is to be done, the gentleman expects to win at it. Per contra, we have in the French revolution an illustration of what must be the fate of an aristocracy that has become physically effeminate. Taine notes as typical this fact, that no Jacobin official coming to arrest a suspect ever met with resistance, while in England almost every such arrest would have been the occasion for a fight, or even a local riot. The French aristocracy doubtless possessed high spirit and chivalrous daring, but that rugged manliness which promptly and

resolutely resists every invasion of one's individual rights, seems to have been almost entirely wanting. Some of them exhibited in a remarkable degree the passive courage which enables men to die with grace and dignity, but they wholly lacked what the times demanded, that active courage which is determined that, if possible, somebody else shall do the dying. We do, indeed, read of one man in the South of France, against whom many warrants were taken out but who was never arrested because he had armed all his servants, prepared his chateau for resistance, and given out that he would never be taken alive. But he was a monumental exception. Of course our needs are not altogether the same as those of a land in the throes of revolution. Still the difference is mainly one of degree. The ultimate authority in all government is force. Those who are best prepared for the appeal to the last arbiter, will, as a rule, have least occasion to make it. Now and then, mob violence must be met in kind. Political bosses who try to smash the opposition at a primary by getting up a fight, can be met only by superior courage, hardihood, and muscle. For such occasions the average graduate of the present day is far better prepared than his predecessors were. Still, much remains to be done. The time should come, doubtless will come, when physical culture will be considered as indispensable to a college course as language or mathematics.

But there are other changes in modern systems of culture which have some relation to this problem of the best preparation for practical life. The modifications of the curriculum are, in my judgment, for the most part advantageous. The atmosphere of mathematics and science, if less refining than that of the classics, is at any rate more bracing. Students whose habits, tastes, and general attitude of mind are largely formed in scientific work, seem to have a more wholesome every-day fashion of looking at things. So the more extensive study of history and the general introduction of courses in political economy, politics, and other departments of social

science, have done much to correct the scholastic tendency toward ideology. College men are getting to be the very last persons who would recommend sudden and sweeping changes in the body politic. Especially has the study of the social sciences, according to the historic method, enabled men to realize the exceeding complexity of society and the vast number and variety of the forces at work therein, and so to realize the danger of making a wholesale application of abstract principles. The development of these studies is also doing a great deal of good by impressing upon the student the importance of problems of this sort, that is, of problems which concern the life of society. He no longer sees all the strong men of his college wholly absorbed in the study of topics which have merely scholastic or theoretic significance. He is, therefore, much less liable to go out feeling only contemptuous indifference toward those burning questions which are absorbing the interest and attention of the world about him.

Yet the changed conditions of education do not all tend in the direction of greater practical efficiency. There are two or three notable exceptions. The development of a true university spirit, on which we all are disposed to congratulate ourselves, is not an unmixed good. The spirit which loves truth for her own sake, without thought of the ulterior advantage which devotion to her service will bring, and indeed without thought as to any practical consequences which may follow her revelations—this spirit is the *sine qua non* of high scientific attainments. It must become fully dominant in American university life before we can hope to escape from the position of intellectual colonies to Europe. Naturally enough, then, the development of this spirit should be a prime object in the training of those who aim to become the thought-leaders of the future. However, it is by no means so clear that the same course of training is specially adapted for the average student who is hereafter to be devoted to the practical professions, or even, it may be, to business. Because a given characteristic is a good thing in a lawyer, is no proof that it would

be in a clergyman. Different functions demand different training. As we have seen, the spirit which holds every proposition by so slight a tenure that its relinquishment on the slightest adverse evidence is perfectly easy, though essential to the scholar, is rather a weakness in the practical man. He must have convictions. It is, indeed, possible absolutely to incapacitate a man for sound judgment on every question of real complexity by an over-development of the scientific spirit. A very frequent phenomenon of our age is a sort of universal agnosticism, the victims of which can appreciate the force of the arguments for and against a given proposition, and are ready to admit the practical importance of coming to a conclusion in the matter, but are simply unable to do so. Men of this class are, as a rule, those who have been trained in the nineteenth century ways of thinking till the habit of scientific doubt has become a disease. Now this surely is not an ideal sort of culture. We ought, indeed, to be ready to yield to new light, but we ought also to be able to reach convictions. Both sides to a controversy are not right. One must be. A man with a sound, healthy judgment ought to be able to weigh fairly whatever is to be said either way, and then form a conclusion quite adequate to furnish a basis for action. If the habit of impartiality has been developed beyond this it has become, for the practical man at least, a disease. Against such excessive development it is the duty of educators to guard.

Closely allied to the above is another modern tendency which is not altogether to be approved; I mean the tendency toward too early and too narrow specialization. We hear among teachers a great deal of criticism on our highly diversified curricula. "Be content," they say, "to teach a few things and those well." Now, that this plan has some advantages must of course be admitted. But I decidedly object to the conclusion that it is, on the whole, the best plan. To make men adapted for the general duties of citizenship in republican America, requires a symmetrical culture, and that

is to be derived only from a diversified curriculum. Specialization is a necessity under the conditions of modern life, but it should not come too early. Even among university students such specialization should be much more restricted here than in Germany.

2. CHANGES IN GOVERNMENTAL MACHINERY.

So much for the modification of educational systems. A second class of remedies involves some change in governmental machinery. Here belongs Albert Stickney's ingenious but quite impracticable election scheme. According to his view, the true way to give the natural leaders of society their due weight in politics, is to have all elections carried on in public meetings; since where men are brought face to face in a deliberate body, superior culture, force of character and probity inevitably make themselves felt. This, of course, involves the abandonment of the ballot, which, according to his view, is less often a protection to the voter's freedom than a cloak behind which greed, envy, prejudice, and other mean motives carry on their contemptible work, unexposed and unpunished. There is, doubtless, much truth in this view of the case. But universal experience at the primaries has shown that these same forces work almost as freely at the public meeting, and, besides, are made vastly more potent by their undisguised alliance with intimidation. The scheme might give wealth greater power than at present; but culture would more likely lose than gain. In any case, the plan is so far from any chance of adoption that it merits no further discussion.

Much more practicable, probably, is the plan of civil-service reform. The spoils system puts a premium on that sort of political activity which has for its object, not the public good, but the selfish advantage of the individual. It is therefore inevitable, under our system, that politics will be taken up as a trade by a great number of persons, whose sole qualification is exceptional unscrupulousness. But it is just the presence of this element in such excess which drives away the better

classes and, when they do enter public life, compels them to resort to methods for which they have no aptitude, either natural or acquired. Abolish the spoils system, and you will soon have little occasion to complain of "the saloon in politics," or of corrupt rings and bosses. Abolish the spoils system, and you will give the cultured classes a chance to assume their natural leadership; for, where a not-too-keen self-interest is felt, the masses of men are, at least, fairly susceptible to the influence of those who are their superiors in knowledge and culture. The college man who is not in sympathy with civil service reform, even if he is opposed to particular methods for accomplishing the result, is a politician or thoughtlessly indifferent to the welfare of the nation and to the power of the class to which he belongs.

Of similar value, as increasing the influence of the better classes, is the proposal to disfranchise, for a longer or shorter time, every person who has been convicted of a criminal offense, however small. This is one of the reforms which patriotism and self-interest should alike recommend to the cultured classes.

3. CHANGE IN PARTY METHODS.

A third class of remedies would involve changes in party-methods. Thus the general adoption of what is known in Ohio as the Crawford County plan, would probably result in the increased political influence of the cultured classes. By this plan the party nominations are determined by an informal ballot of all the members of the party, not at a primary meeting, but at some convenient polling place, which is open long enough to enable all to vote without any loss of time, and without facing the disagreeable accompaniments of an ordinary convention. Of course, even on this plan there will be slates, and the slates will stand a pretty good chance of winning. But there is, at least, some chance that the better elements in the party will have an opportunity to give expression to their preferences.

4. DIFFERENT CONDUCT ON THE PART OF THE CULTURED CLASSES.

We have now considered those remedies which involve changes in the system of education, or in governmental machinery, or in the methods of party politics. We have still the possibility of some change in the practice of men of culture themselves. Here, the most usual remedy proposed, is a more active participation in politics. This is the prescription of the professional politician. "Go to the primaries," he says; "take part in practical politics; learn the ropes; show men in general that you do not feel above them, that you are able and fit to lead them, and you will have a chance to do so." Now this sounds very well, and, doubtless, there is some truth in it. But not very much. The source of this prescription is too suspicious. Politicians have no anxiety to diminish their own authority. They can scarcely be trusted to give good advice to those seeking to share it. They fear, and rightly, the independent voter. They therefore, are anxious enough to increase the number of persons committed to the party program. But they are confident that they will still be able to determine that program. Now is their confidence misplaced? What is the usual consequence of an invasion of the primaries by the better class of citizens? In some of our cities, as Bryce shows in his American Commonwealth, they find that only about twenty per cent. of those who usually vote with the party are inscribed on the party rolls, the rest having been excluded by the vote of those already members, or by their refusal to take the iron-clad oath, or by the fact that at the last election they scratched the ticket. Even if they get in, what chance have they against the Machine which has its slate all prepared? If they show sufficient resolution and numbers to endanger the success of the caucus nominees, the boss brings on a row, and in the melee the chairman declares the slate adopted. A friend, who was a long time a resident of Cleveland, tells me that even in that city, which is of a much higher type than New York, it will frequently happen

at the primary that, when a voter desires to cast a ballot against the machine candidates, he finds himself hustled and the way blocked by a good-natured, but determined crowd, till he gives up in despair or the ballot is declared closed.

Even in the country towns he is but little better off. As an honest citizen he goes to the primary to get the best man put up. He therefore finds himself without definite plan pitted against a host of men who evidently have some secret understanding. Before he realizes what is happening, or even, in spite of his earnest protest, the informal ballot is thrown over and the nominees of the ring are presented in effective style to an audience of claquers. Attempting to propose another, he is met by groans and cat-calls, and finds, even when permitted to finish, that he has been talking to a company of men, most of whom had settled the matter before he reached the floor. Occasionally some disgruntled politician undertakes the leadership of the amateurs that have invaded the primary. The result then is quite different. They often before had the numbers, now they have the generalship; and down goes the slate in short order. But what is the result? The regulars, defeated at the primary, "knife" their own candidate; and the victory of the amateurs proves wholly barren. Now this is no accident of particular experience; it is just what might have been anticipated, because it grows out of the very nature of the case. Politics is a trade as well as a profession. It requires training, not only in the best methods of using power, but also in the methods by which power is obtained. For the average citizen, who is most of his time necessarily and properly absorbed in other duties, to pit himself against men to whom politics is a trade, is to invite defeat. The majority of men of sense will not put themselves in such a position very many times. Nor is there much more sense in the wholesale condemnation of "the machine." The acquisition of power under a popular government not only requires training; it also requires an organization. This organization is the Machine. Since it grows out of the nature of circum-

stances, every effort to overthrow it merely results in re-manning the old machine. So the possession of the machine for long periods by a particular set of persons, that is, the existence of rings and bosses, is equally natural and inevitable. Successful organization everywhere involves experience in those who man the organization. Frequent change in the *personnel* of the machine would greatly impair its efficiency. Of course, if one set of men have a grip on the situation for any length of time, they will inevitably tend to sacrifice the interests of the public to their particular private interests,—to become our masters instead of our servants. How shall this be avoided? How shall we secure good service from the machine? I answer, exactly as we do in the other departments, *reject their work, if it is unsatisfactory.* If a suit I have ordered does not please me, I do not set about making one myself. I let my tailor try again or I leave the garment on his hands and go to some other shop. If I doubt the wisdom of the course pursued by my family physician, I do not begin to prescribe myself, but call some other member of the profession. So it should be in politics. Because I am dissatisfied with one boss is no proof that no boss is needed, or that I could make a better one myself. The true way to make my influence felt is to induce the boss to pay attention to my wishes in his method of doing a work for which he is much more competent than I. To secure this result I must convince him that his failure thus to regard my wishes will result in the loss of his power.

I would say then, that the true attitude of those citizens who do not propose to make a business of politics is, while connecting themselves with one of the two dominant parties, to hold themselves in such relation to the organization, that a failure of its leaders to make the nomination which, under all the circumstances, is the best possible, will insure their prompt and general refusal to support such nominees. This, and this only, will bring the leaders to their senses. Sometimes this will involve voting with the opposite party; sometimes setting

up an opposition ticket; sometimes putting forward a citizens' ticket; sometimes organizing a third party. The first plan is, in the nature of the case, the most effectual if it can be carried out; but it is also the most difficult. It is most effectual, because then every vote counts twice against the obnoxious boss, since it is taken from his vote and given to the one of his rivals who has the best chance. It is the most difficult, because thoughtful men are loth to support, even for a single election, a party against which they have all their lives contended, especially as they do not usually find the nominees of that party any better than their own. I confess it seems to me perfectly justifiable, since the end is not to bring about an immediate improvement of matters, but to secure from one's own party boss more faithful service. If we can accomplish this, we can be sure of good candidates at the next election. Besides, the term of office is commonly so short, that the election of the less satisfactory candidate is not a matter of any great moment, provided the way is being prepared for a better order of things in the future. But of course, in deciding what plan to adopt, we must take into account circumstances and the condition of public sentiment.

In applying this loose allegiance policy, it should be remembered that its success depends as much on our being ready to *return* to the party as to *leave* it. On this account the fourth plan, that is, the forming of a third party, involves considerable chance of failnre. If the new party gets to claiming our loyalty in the same fashion as do the hack politicians, and if we get in the way of yielding to that demand, the effectiveness of the bolt is almost wholly destroyed. To give party leaders the impression that nothing will bring us back to their support, is as fatal as to give them the impression that nothing they can do will drive us away. The attitude of the Prohibitionist who says "I will never again vote with either of the ruling parties," and the attitude of the Anti-saloon Republicans, who say "Listen to us, but if you do not, we will still vote with you," are equally silly.

Of course, it is of great importance not to carry the notion of bolting too far. To demand that the party leaders should accept our particular programme, when it would mean certain defeat, is absurd. The first condition of accomplishing any good through the state is to get power. If the leaders, by falling in with our ideas, should necessarily drive away more votes than they would retain, they would be very silly to pay any attention to us. We must bide our time and not ask unreasonable concessions.

I have thus far argued for the potency of the loose allegiance plan from the stand-point of reason and common sense; it should be added that experience every day demonstrates the truth of this position. There is one class in society which, under the *regime* of universal suffrage, everywhere and always exercises disproportionate influence. Good men bewail the fact, they protest against it, they strive to bring about a change, but all in vain. The class thus favored is unfortunately not the best but the worst. The keepers and frequenters of saloons, the half-criminal classes, the newest and lowest immigrants, the floating, vagrant population of our great cities, the vicious elements of society generally, count as much as ten or a dozen men of the better classes. How is this to be explained? Simply enough;—"the children of this world are in their generation wiser than the children of light." The classes named hold themselves always in readiness for a stampede from those leaders who will not regard their wishes. They take part in their party caucus, and, if defeated, they "knife" every candidate who displeases them. The politician, consequently, feels obliged to pay attention to their demands. Not so with the masses of intelligent, law-abiding citizens. Among them there are so many differences of opinion, so much sensitiveness about seeming to go together like a flock of sheep, that their power to determine the policy of party leaders seems almost in inverse ratio to their fitness. If it were well understood that the opponents of saloon domination and of the spoils system, who constitute by all odds a majority of the members of one

party in the North, were ready to bolt without scruple the leaders who failed to respect their wishes, the saloon, as a power in politics, would be overthrown in a single year. But the bosses know that they can depend on the long-suffering and tender mercy of the higher classes, as they never could on that of the saloon element. They therefore make verbal concessions to the former, and reserve the real ones for the latter.

Now what the vicious classes do from unscrupulous selfishness, the better citizens ought to do from principle. Why are men of intelligence continually caught by the politicians' cry of loyalty? A party is not an end in itself. It is only a means. If it fails to accomplish any good end, one ought to feel no more sentiment in discarding it than in throwing away a broken tool. Especially is this true when, as is usually the case, loyalty to the party means nothing more than loyalty to a corrupt ring or to a contemptible boss.

If, now, the soundness of the above argument be admitted, it is evident that the real hope of the nation is in the growth of a class of voters who, while recognizing the value and importance of party organization, and so habitually acting with some party, are after all bound to the party by so slender a thread that they always stand ready to vote against its candidate whenever the interests of good government demand such action. To take such an attitude is, then, the duty of every good citizen, but pre-eminently of the distinctively cultured classes. They are, or ought to be, freest from the fanaticism which often marks even the best of the half-cultured classes. They ought to be, more competent to look below the prejudices and passions of the hour, and see the real issues of the conflict. They ought to be above the illusion which sees only good in one party, only evil in another. They ought to be most indifferent to the jeers and chidings of the hack politicians. Finally, in no position as simple citizens can they make their culture so potent to secure the triumph of good government.

SANITARY SCIENCE.

BY PROFESSOR DELOS FALL, M. S.

In the biological laboratory of Albion College may be seen test tubes bearing the somewhat startling labels, cholera, typhoid fever, pneumonia, splenic fever, etc. These may stand as representative of the advanced work done in these later days in Sanitary Science.

This humane science has the two-fold mission of saving and prolonging life; it has increased the longevity of the race from twenty-four years in the seventeenth century and twenty-nine in the eighteenth, to nearly or quite a half-hundred years, and sanitarians are agreed that we ought to live a complete hundred years, and that by proper living we could do so.

In a carefully-prepared paper, read before a recent sanitary convention, the proceedings of which are just published, Dr. Baker, the Secretary of the State Board of Health, gave official statistics and evidence which he summarized as follows:

"The record of the great saving of human life and health in Michigan in recent years is one to which, it seems to me, the State and local boards of health in Michigan can justly 'point with pride.' It is a record of the saving of over one hundred lives per year from small-pox, four hundred lives per year saved from death by scarlet fever, and nearly six hundred lives per year saved from death by diphtheria—an aggregate of eleven hundred lives per year, or three lives per day saved from these three diseases! This is a record which we ask to have examined, and which we are willing to have compared with that of the man who 'made two blades of grass grow where only one grew before.'"

It is not the purpose of this paper to demonstrate the truth of the above statement but rather to show the method by which such a remarkable resultant in life-saving is reached.

The present census of Michigan will probably show a popu-

lation of about two million people. Of these about one and three-fourths per cent., or 35,000 will die before the end of the year. Stated in another way, the number of deaths in our State for a year is at the rate of seventeen to every thousand of inhabitants. It may be that owing to some imperfection in the method of obtaining vital statistics, this ratio is somewhat lower than it should be. It is as low as any State in the Union, and much lower than in many states. In Massachusetts in 1887 the death-rate was 20.27 per thousand of the living population; in New Hampshire 18.51 per thousand; in England, 21.9; in Ireland, 17.5; in Austria, 31.1; in Switzerland, 23.6; in Norway, 16.9. It will thus be seen that Michigan compares favorably with other countries in regard to its healthfulness; nevertheless it is true that by proper attention to sanitary matters, the death-rate may still further be decreased.

We may now turn from this brief survey of the mortality of the state as a whole, to consider the various causes which contribute to these deaths. These are arranged by the statistician in five classes, as follows:

(*1.*) Zymotic diseases. They are the contagious or communicable diseases, such as typhoid fever, whooping-cough, diphtheria, scarlet fever, small-pox, consumption, etc.

(*2.*) Constitutional diseases. The principal disease under this head is cancer.

(*3.*) Local diseases: convulsions, heart-disease, bronchitis, pleurisy, Bright's disease, etc.

(*4.*) Developmental diseases: teething in children, old age, etc.

(*5.*) Violent deaths: burning, poison, railroad accidents, homicide, suicide, etc.

Of the causes here enumerated the sanitarian confines himself principally to the first class, for it is the zymotic diseases which from their nature we may restrict and prevent.

Named in the order of their prevalence, the five diseases which cause most deaths in Michigan, are: consumption, diphtheria, pneumonia, typhoid fever and scarlet fever. With the

exception of pneumonia these are all communicable diseases.

The annual death-rate from these diseases in Michigan is about as follows: consumption, 4,000; diphtheria, 2,200; typhoid fever, 1,000; scarlet fever, 900. If then, these diseases could be prevented, it would mean the saving of several thousand lives yearly.

In times not very far removed from our own it was supposed that the visitation of epidemics and plagues was a sign of the Divine displeasure, and that therefore they must be submitted to as a merited punishment for sins committed. Sins had been committed, but of a nature very little understood. To-day, in the light of recent scientific investigations, we know what disease is, how it is caused and how spread from person to person. In the case of the special diseases we are considering and many others, it has been definitely proved that they are caused by the growth and development in the human system of certain specific living organisms, vegetable in their nature, variously called microbes, bacilli, bacteria or germs. Each disease is caused by its peculiar and distinctive germ, and the germs of one disease can never give rise to another; the germs of consumption, for example, can never give rise to scarlet fever or to any other disease than consumption.

To illustrate, when Canada thistles or chess is found growing in a field where it has not previously existed, we do not regard it as having originated *de novo*, but rather that the seeds of these plants have made their way from some crop of the same variety matured elsewhere. So with the germ diseases, when one of these breaks out in the human system, it is not to be regarded as a case of spontaneous generation, but the seeds or germs of that particular disease have made their way from some previously existing case.

It will be seen, in passing, that this conclusion as applied to consumption, would largely destroy the prevailing theory of the transmission of this disease by heredity, and in fact the theory of the hereditary transmission of consumption has been almost wholly abandoned. A weak and improverished system

may possibly be handed down from father to son, a system that shall have a low resisting power, one predisposed to favor the growth of the baccillus of consumption when once it is introduced. It is believed that every case of consumption has arisen directly from some pre-existing case.

To recur to the test-tubes mentioned above ; of the diseases mentioned, the seeds or germs have been discovered, isolated from all others and now may be grown, reproduced in great numbers, examined by the microscope and experimented with in many ways.

The list of diseases which are positively known to be caused by micro-organisms is large and the number is rapidly increasing.

Dr. Sternburg in his "Bacteria" p. 263. says :

"In the pages which follow, the writer proposes to pass in review the infectious diseases which, upon evidence more or less convincing, have been supposed to depend upon the invasion of the infected animal by the parasitic micro-organism."

He then gives a resumé of evidence bearing on the following diseases.

Anthrax (malignant pustule), symptomatic anthrax, cerebro-spinal meningitis, cholera, erysipelas, cholera of fowls, diphtheria, glanders, gonorrhea, hydrophobia, intermittent fever, leprosy, malignant œdema, milk sickness, measles, pleuro-pneumonia, infectious pneumonia, pyæmia in rabbits, relapsing fever, scarlet fever, septicæmia in mice, septicæmia in rabbits, spreading abscess in rabbits, swine plague, syphilis, tuberculosis (consumption), typhoid fever, variola (small pox), variola of pigeons, whooping-cough, yellow fever.

To these should be added the following, mentioned by Crookshank : actinomycosis, acute yellow atrophy, cattle plague, endocarditis, opthalmic diseases, osteo-myelitis, puerperal fever, and tetanus.

The methods made use of in the study and identification of these germs are rapidly becoming systematized, and already Bacteriology has taken its place in the great family of Natural

Sciences. Before the formal announcement of the discovery of a specific germ can legitimately be made, it must have withstood at least four special tests. These tests were originated by Koch, the eminent bacteriologist who discovered the germ of consumption, and are as follows:

(*a.*) The micro-organism must be found in the blood, lymph, or diseased tissues of man, or animal, suffering from, or dead of, the disease.

(*b.*) The micro-organisms must be isolated from the blood, lymph or tissues, and cultivated in suitable media, i. e., outside the animal body. These pure cultivations must be carried on through successive generations of the organism.

(*c.*) A pure cultivation thus obtained must, when introduced into the body of a healthy animal, produce the disease in question.

(*d.*) Lastly, in the inoculated animal, the same micro-organism must again be found.

This method is followed by all investigators in Bacteriology. The animals chosen are guinea-pigs, mice, rats, rabbits, cats, dogs, monkeys, etc.

The history of the investigations made to discover the cause of diphtheria make an interesting illustration of the methods employed.

Klebs, at the Medical Congress of German physicians at Wiesbaden, in 1883, described a bacillus which he had recently found in the false membrane, in an outbreak of diphtheria.

In 1884, Lœffler gave the results of his studies of the same bacillus in the report of the Imperial Board of Health of Germany. In a few typical cases he was unable to find the bacillus of Klebs, and he surmises that the micro-organisms might have been present earlier in the disease and had been eliminated before death occurred. The bacillus was found only in the false membrane or upon parts which were infected with the diphtheritic inflammation. Guinea pigs inoculated subcutaneously with the pure cultures of the bacillus died after an average period of two days. The bacillus was found in nearly all the

cases reproducing itself at the point of inoculation, but in no single case could it be found in the internal organs. Lœffler concluded that the bacillus multiplied only at the point of implantation, where it produced a chemical poison, bringing about the local slough, general symptoms and death of the animal. Nevertheless he thought the complete proof that the bacillus was the cause of the diphtheria had not yet been furnished. In a later communication in 1887, he reported finding the bacillus without exception in ten recently examined cases of diphtheria.

In 1888 Roux and Yersin reported concerning their experiments with the Klebs-Lœffler bacillus. They showed that the pure cultures of the bacillus when placed in contact with the excoriated mucous membrane of certain animals, gave rise to the diphtheritic false membrane. After death from diphtheria in the human subject, the bacillus is found only in the false membrane from which alone cultures can be made. The same fact is found in experimental diphtheria.

In May 1889, Kolisko and Paltauf gave the results of their investigations into the nature of croup and diphtheria. They found the bacillus of Lœffler in about fifty cases of different forms of the disease, in nasal and pharyngeal diphtheria, in croup of the larynx and trachea. They regard the disease of the throat, (diphtheria), and the disease of the larynx, (croup), as etiologically the same.

Sternberg says concerning the work of Roux and Yersin: "Our authors claim that this evidence completes the resemblance of our experimental malady produced by inoculations with this bacillus, to the natural malady, and establishes the specific role of the bacillus of Klebs and Lœffler. Without going quite so far as this, we say that the evidence seems to us to give strong support to the couclusion."

The end sought after in all these investigations is the very practical one of being able to teach the common people how to destroy these germs, and so prevent disease and save life.

It must be remembered that the matter of prevention, the

actual life-saving, cannot be brought about without the hearty coöperation of every person. When every one will intelligently inform himself as to the means to use; when all will yield willing compliance to the advice and directions of the legal authority, the health officer; whenever the information already in the possession of sanitarians shall be acted upon, epidemics will be stamped out, hundreds of useful lives will be saved to the State and sorrow prevented which is indescribable and which cannot be computed.

Let it be insisted that the restriction and prevention of disease is a perfectly practicable matter. The literature of Sanitary Science abounds in illustrations of wonderful results in this direction. A few years ago a certain portion of Montreal thought it would be a "wicked attempt to thwart the will of the Almighty" if they should employ vaccination as a preventive of small-pox and as a consequence three thousand people died and many hundreds more were frightfully disfigured for life. On the other hand, in 1874 a law came into force in Prussia making vaccination and re-vaccination compulsory, and while previous to this law the mortalities from small-pox per 100,000 of population had, only on six occasions in fifty-seven years, been as low as ten, it fell the very next year after the vaccination law of 1874 to 3.6. In 1877 the mortality was as low as .34 per 100,000. It had not up to 1882 reached a higher figure than 3.62 per 100,000 since this act was passed. Taken in connection with the fact that there was no such decline in Austria during this same period, this great lessening of the death rate of Prussia may properly be attributed to the vaccination law.

The history of typhoid fever epidemics in the city of Glasgow is another case in point. The fever death-rate in that city during the 10 years, 1861—70, was 20.20 per 10,000 inhabitants, and during the next decade, 1871—80, owing to active sanitary work, was only 7.09 per 10,000. It should also be borne in mind that during the second decade the population went on increasing so that, but for the increased sanitary

activity, the fever mortality of 20.20 ought, according to a well known law, to have increased somewhat during the next decade rather than to have fallen off two-thirds. The average annual death-rate from all causes during the decade, 1861—70, was 30.29 per thousand, and during the second decade, 1871—80, was only 28 per thousand. "This difference in the death-rate between these two decades means this, that 10,000 persons were alive at the end of 1880, who, if the death-rate had remained as in the first decade, would have been dead. '

The particular method employed for the prevention of the spread of disease varies with the nature of the given disease and the circumstances surrounding the case. The principal watchwords of the reform are two, isolation and disinfection. Whenever any case appears which is suspected to be a communicable disease, the patient and nurse should at once be thoroughly isolated from all persons, those who may themselves be susceptible to the disease or who may be the means of communication between the sick and the well. After this nothing must be allowed to pass from the sick room to that part of the house occupied by others without having been first disinfected by the proper means. This applies to air, water, food, dishes, clothing, books, papers, everything that has been within the limits of the sick room.

The details of the proper method of procedure for each case can not here be given but it may be said that explicit directions for all the most dangerous communicable diseases have been prepared by the State Board of Health and may be had on application to the secretary at Lansing, one of the principal functions of that board being the collection and dissemination of information concerning all matters which are dangerous to the public health. It has collected a large amount of such information, published it in available form and for the asking any citizen in Michigan may have the benefit of it.

This brief and very imperfect review of some of the special work which is being done in Sanitary Science should not be closed without recording the latest and boldest attempt at life-

saving. The present attitude of Sanitary Science in regard to this important question may be stated as follows: one in every eight of all deaths in this country is caused by the great white plague, consumption. The disease is not thought to be transmissible by heredity from generation to generation, but rather to be caused by a microscopic organism, known as *bacillus tuberculosis* (Koch). When that germ makes its way into a human system of low resisting power, its growth and development causes the condition known as consumption.

These bacilli are present in the sputa of consumptives; and, although outside the body at ordinary temperatures they do not multiply by reproduction, they are not destroyed by drying, and, hence, in appartments occupied by consumptives who do not take care to so dispose of the sputa that they shall not become a part of the dust of the room, the dust may contain the bacilli or spores. Again, because so large a proportion of people have consumption, the dust of halls and public places where sputa reach the floors and may become a part of the dust of the room, may contain these bacilli.

The fact last stated is of the greatest importance, since not only may healthy persons inhale these germs and thus run the risk of contracting the disease but a consumptive may reinfect himself, may breathe the germs back again into his system there to do "their first work over again," and greatly aggravate his condition.

Now, bearing in mind the one fact that the great danger of infection from this disease lies in the dried sputa, it would seem that all persons would heartily coöperate in some rational method of protection against the evil. The method suggested by sanitarians is a simple one and ought to be adopted at once by all who are consumptive, viz: that the sputa should be received in some convenient receptacle which will admit of the destruction of the germs. These may be destroyed by either of two simple methods; (1) they may be received in a cuspidor containing a solution of mercuric chloride, one part dissolved in a thousand parts of water, or, (2) they may be received

in a convenient receptacle of cloth or paper and thrown into the fire before they shall have become dried.

The future promises great things for the physical welfare of the coming generations, and a sound mind in a sound body, well disciplined through a long life, will be better fitted for the increased responsibilities of the twentieth century than we have been for the present one.

EXCERPTS.

We commenced last year the publication of the views of leading educators on important educational questions. This policy we shall continue in the future. We have room in this issue only for the following. The selections and extracts have been arranged by Professor R. C. Welch, D. D.

EDUCATION IN BOYHOOD.

PRESIDENT TIMOTHY DWIGHT, FORUM, APRIL, '90.

Far be it from us to speak slightingly of what the fathers and mothers and teachers did for us, the older men of the present time, in our school days. They laid hold of some of the fundamental ideas of education and consecrated life and energy to the realization of them. They impart to us the great truth, and make us apprehend it, that intellectual strength is better than mere acquisitions. But they lingered as most men do, under the power of their own ideas, or those which had come down to them from an earlier generation.

The first and fundamental error into which they fell was, that they placed too low an estimate on what they regarded as of secondary importance or even of no moment. They repressed enthusiasm by insisting too exclusively upon the idea of discipline. They kept the student away from the experiments of learning, by shutting him up so completely to the harsher, and, as they thought, stranger things.

The second thing which they failed to appreciate, and the failure to apprehend which, became the source of error for them in their plans and working, was the length of the preparatory term. Their descendants of the present generation are, with few exceptions, like them in this regard. That a boy does as much as he can do, or as he ought to do, if he prepares himself for the freshman year before he reaches his eighteenth birihday, is an opinion which has come to most parents and

many teachers from the past. To go out into wider fields, to grasp the secrets of other languages is thought to be too great a strain for the mental powers, or too great for the physical strength. In our planning for the school years there should be a wide outlook upon knowledge and a filling to the full of the time and opportunities.

There are two things which a youth of eighteen who is to have the best chances ought to know. He ought to know how to study, and how to do it with enthusiasm also, because he has learned the lesson at least five years before. Enthusiasm, guided and controlled by knowledge as to the use of the powers, is the true life of a man alive with the spiritual forces. If we turn our quest towards the details I should say that the order and plan of his studies should be so arranged that their ends may be secured in the earliest season. In the first place, the study of language may be most happily and successfully started in these earliest years. Forms and words and the construction of sentences do not present to the mind either the difficulty in the matter of learning them, or the dryness in the matter of interest, that is experienced in later years. The mind is as truly adapted for the study of language in this early time, as it is for the study of mental science or other studies of a deeper sort in its maturer stage. Is the question pressed upon me whether I think a boy of twelve can be made enthusiastic for the declining of nouns or for the construction of the genitive or ablative case? I answer, some can and some cannot. But this is not what I mean. No language should be studied simply for its genitives or datives. Our motherly English would have no motherly element in it were there nothing offered as its gift, but the rules of its grammar. The child learns English eagerly because every word and sentence which is gained helps its life and thought. Place yourself at the door, and open it, and the enthusiasm will be there. This study has been wonderfully developed in the true line within the last twenty-five years, so far as what we call the modern languages are concerned. It is a melancholy retrospect to me, as thought turns backward to the old days and I see how we could

not learn these languages, most of us, until the spring and joy of earlier youth were past, and how, even then, we had no choice but to begin according to the worst of all systems, and effort and precious time were hopelessly lost forever. The children of our households today may gain the same thing that we gained at five and twenty, and far more than we gained, when they are ten or twelve.

They know words because they want them or read them, and they open the grammar and the dictionary of the foreign language when they do those of their own language—after they have learned to speak and read. Whether the ancient languages can be taught in precisely the same way, has been doubted by many, and I would not discuss the question here. But the thought method, rather than the method of dry details, can be adopted in any language. Every boy who has the best chances ought to have the mastery of the French and German languages before he is eighteen years of age. He should also have such a knowledge of Latin and Greek as will mean power in and over those languages. But the most beautiful languages of the world's history are not orthœpy and orthography, etymology and syntax, and if they are only opened to the student by the right method—the thought method—they will awaken his enthusiasm by the very manifestation of their beauty.

In the second place, as it seems to me, the boy who has the best chances, ought, in the years between twelve and eighteen, be set forward in his course in history, and the beginnings at least, of the literature of his own language. I mention these studies as next in order, because they are so fitted to excite enthusiasm and so adapted also to open for the student the true method of study. The importance of beginning these studies at this period lies in the fact that the true law of reading—the reading of which is good—if not aroused in the early years, is likely to never be aroused at all. It lies also in the fact that the more the youth acquires in these lines of study in the school period, the farther on is his starting point when that

period is ended; and not only this, but the greater the momentum with which he moves on ever afterward. But what a dry and uninteresting thing the study of history was in most of our schools and colleges a generation ago. It was memoriter recitations of text book lessons. The mind was forced to the attempt to take into itself more at once of the unconnected or half-connected facts and details, that it had power to absorb. The significance and inspiration was taken out of what was offered for the learning, and the dry out-line slipped away from the memory.

But what richer field is there for a teacher to work in than history, and where can he more surely and immediately find a responsive enthusiasm on the part of his pupils? So too is it with literature. The blessing of these studies, is in the continuousness of their working for good. My belief, in the third place, is that boys who have the best chances, should know something of music, and should, at least, see the opening of the door toward art studies. The opinion is now well established, I suppose, that all persons, or nearly all, can be instructed in vocal music with a measure of success. I believe that the same thing can be accomplished in the line of instrumental music. If so the refinement and satisfaction which results from it for the after life, cannot easily be estimated. One needs but to enter the home of any family where the members are all gifted or instructed in music, and where, with the accompanying power of different instruments, the voice of song brings the hearts together, and elevates the tone of feeling, in order to appreciate the value of such education for every youth in the early years.

So too, with the rudiments of Art. The boy should at least be taught the art of drawing, and be practiced in it. It is not necessary that we should make our life the Artist's life in order that we may justify ourselves in art study. The art sense, in any measure of it, is an illumination and exaltation of the mind. The art power, even in its minor developments, is an enrichment of our ordinary living. How much, also, do both

of these gifts,—of music and of art, even in their more limited measures of development accomplish for us in turning the thoughts toward what is fine and good. The youth's safety and welfare depend on the impulses within him, far more than they do on his outward surroundings, or the rules which are laid down for the governing of the conduct. The way to expel what is wrong is to feed the soul with the beauty of what is right.

That the mathematical studies should be pursued energetically before the youth has reached the age of which we are speaking, is admitted by all. It may be permitted me, however, to suggest the question whether the general thought has not been too exclusively centered in the past, upon the disciplinary idea even in the sphere of these studies. An admirable mathematical teacher, a friend of mind, affirms that imagination has the widest range in his science, and that imagination is even the largest element in mathematics.

Of natural science, it is, perhaps, hardly becoming in me to speak at length, since my special studies have been in quite a different field. I may venture, however, to say that enough should be done in the earliest days to awaken the boy's powers of observation and his interest in this department of knowledge. Science everywhere brings us into a close relation with nature. The boy is open to all the sympathies which this relation bears with itself. Let him by all means, have the sympathies awakened. There is cheerful hope for the youth whose mind and heart are stirred with love for all truth and beauty hidden in the natural world.

If the studies that have been mentioned are to be offered to the boy in the earlier years, the question what he should know when he is eighteen, will be determined by the possibilities of progress which may be open to his individual life. Whether he should have already included the studies now allotted to the freshman class, is a question which it may be difficult to answer. But that he should have put behind him some of the rudimentary things that now burden the freshman year cannot be doubted.

The growth should be in all studies alike. The evil to be greatly apprehended by reason of the tendencies of opinion in the popular mind of late, is that we shall bring forward a generation of imperfectly educated specialists in this country. I mean by this expression, not specialists that are half trained in their own particular departments, but specialists who are imperfectly educated as men. No result within the limits of admitted progress beyond the time of our fathers, is, in my judgment, more to be deplored than this. The fathers had, at least, a wide outlook, as far as their field of vision reached. They believed in individual men full grown and matured in their whole manhood, and not in mere scholars, or practitioners in some one section of life or knowledge, whose mental culture should be limited to that one section. Men are what we need in this country. Men who, whatever may be their profession, are more than their profession; men who, whatever may be the extent of their knowledge in their own particular science, know much that is beyond this science, and see the glory of all-knowing and of all truth.

SCIENCE IN THE HIGH SCHOOL.

DAVID STARR JORDAN, PRES. UNIVERSITY, IND.

The purpose of science-teaching as a part of general education is this—to train the judgment through its exercise on first-hand knowledge.

Science is our perception of realities; and as the realities come year by year, to occupy a larger and larger place in our life, so the demand for more and better training in science will long be an urgent one. But science should hold its place in the schools by virtue of its power as an agent in mental training, not because of the special usefulness of scientific facts, nor because knowledge of things has a higher market value than the knowledge of words. The science of our schools is too often a make-believe, and the schools will lose nothing when make-believe slips out of the curriculum.

Deeply as I am interested in the progress of science, both in school and out, with Prof. Huxley, "I would not turn my hand over" to have biology taught in every school in the land, if the subject is taught through books only. The conventional "fourteen weeks" in science gives no contact with nature, no training of any sort, no information worth having; only a distaste for that class of scattering information which is supposed to be science.

There is a charm in real knowledge which every student feels. The magnet attracts iron, to be sure, to the student who has learned the fact from a book, but the fact is real only to the student who has felt it pull. It is more than this, it is enchanting to the student who has discovered the fact for himself. To read a statement of the fact gives knowledge, more or less complete as the book is accurate or the memory retentive. To verify the fact gives training; to discover it gives inspiration. Training and inspiration, not the facts themselves, are the jus-

tification of science-teaching. Facts enough we can gather later in life when we are too old to be trained or inspired.

What is true of one science, is true of all, in greater or less degree; and I may take the science of Zoölogy for my illustration, simply because it is the one nearest my hand. In very few of our high schools has the instruction in Zoölogy any real value. For this unfortunate fact there are several answers, and some of these are beyond the control of the teachers. In the first place the high school course is overloaded, and the small part of the course given to the sciences is divided among too many of them. Indeed, so greatly have our schools sinned in this respect that many writers on education seem to regard science as synonymous with smattering, and they contrast it with other branches of learning, which are supposed to have some standard of thoroughness. Most of our colleges have, at one time or other, arranged courses of study not approved by the faculty, in response to this popular demand for many studies in a little time. Such a course of odds and ends is always called the Scientific Course and it leads to the appropriate degree of "B. S."—Bachelor of Surfaces.

The high school can do some things very well, but it will fail if it tries to do too much. Unfortunately the present tendency in our high schools is in the direction of such a failure—to do many things poorly, rather than a few things well. Each high school aims to give a general education; to be a university in a small way—a university for the poor—a poor university.

President Hill of Rochester University has well said: "Thousands of our youth have studied chemistry without ever seeing an experiment, physics without seeing an air-pump, and astronomy without ever looking through a telescope." A professor of the ancient type maintained that this was a great advantage, like the study of geometry without figures, because it stimulates the imagination. It is an invigoration of stupidity and conceit, sealing the mind to reality by substituting subjective fancies for experimental proofs, and the pretense of knowing for clear ideas. Its effect upon the morals is as pernicious

as its effect upon the mind, for it weakens the reverence for truth and engenders the habit of mental trifling.

Even so wise a teacher as Dr. William T. Harris excludes science teaching, (and science teaching with him means simply giving information about scientific subjects,) from the fundamental requirements of education, because the knowledge of nature is not one of the five windows through which the soul looks out on life. These windows, according to Mr. Harris, are reading and writing, grammar, arithmetic, geography and history.

A second difficulty is this: Our towns will not pay for teachers enough to do the work as it should be done, and of the few teachers we have, the people make no demand for thorough preparation. And such teachers are expected to teach a dozen subjects each, and therefore have no time to make good their defective preparation.

But taking things as they are, fairly good work may be done by the use of good methods. A great deal will depend, not on the kind of books you use, but on the kind of books you avoid. Most of the current text-books of elementary Zoölogy are simply pernicious, so far as your purposes are concerned. Even if they were well digested and accurate in their statements of facts, which is rarely the case, they are based on incorrect principles. They are not elementary but fragmentary in their character. It is a great mistake to suppose, that because a book is small and says very little about each one of the animals of which it treats, it is thereby rendered elementary. Elementary work in science should treat of but very few things, but the impressions it leaves with the child should be very clear ones. The ideas derived from the common text-book are of the vaguest possible character. If you keep clear of these you cannot go far astray.

The essential of method is that we allow nothing to come between the student and the object which he studies. Your students should see for themselves and draw their own conclusions from what they see. When they have the ground-work

of their own observations, other facts can be made known to them as a basis for advanced generalizations, for the right use of books is as important as their misuse is pernicious; but work of this sort belongs to the university rather than the high school.

THE BUSINESS MAN AND THE COLLEGE.

CHAS. A. BLANCHARD, PRESIDENT WHEATON COLLEGE, "THE STATESMAN," APRIL, 1890.

There are probably no business men in the world more acute, intelligent and enterprising than those of the United States. The vast extent of our territory, our almost limitless resources, have combined to sharpen and energize the minds of our merchants, bankers and managers, until they are certainly unsurpassed and probably unequaled in ability to understand and carry forward great enterprises.

It is the misfortune of specialists however, that their view is limited. The very fact that margins are so narrow and rivalry is so intense, lessens the ability of the average man to see more than the one thing about which he is busy, and hence it follows that men may be public spirited and wealthy, and at the same time fail to render such service to their age as they could and would, did they only see how it could be done. On no subject, probably is there greater need for calm and thoughtful writing and reading among business men than on the one indicated in my title. The mass of successful commercial men do not seem to feel that the *College* is an institution which concerns them in any way whatever. Among farmers the case is even worse, the prejudices more deep-rooted.

I ask from all to whom this shall come a consideration of the question:

What should be the attitude of the business man to the college?

First: A sound mental and spiritual life is the only foundation for a good business world. A few business men may be drunken, dishonest, worthless, and yet society moves forward; but what would occur if men in general should become idle, vicious, untruthful, and dishonorable? Men are compelled to trust their clerks, book-keepers, and agents; they

are under the necessity of trusting one another. There must be a basis of integrity and intelligence in the nation which shall render these partners in the world's work reasonably certain of their reward.

Undoubtedly mere mechanical contrivances will do for awhile. The bell-punch, the states-prison, the military camp, will suffice to care for a turbulent and threatening minority; but if the mass of the people become materialists, fearing nothing but force, desiring nothing but self-gratification, what would happen then?

Is the great trouble today that we lack men of sharpened intellect, or men of thorough integrity? Is the trouble with most men that they do not know how to earn an honest living, or that many of them are not disposed to do so? Is the great lack of the business world capacity or conscience? If the latter, then we must beware of relying on any materialistic plans for meeting a spiritual difficulty, and whatever the future may have in store for us, so much as this is certain, that in the past the conserving forces of society have come from the college more than from any other human institution.

No amount of wealth, no natural resources, no mere intellectual culture can possibly render property secure and life safe. We must have self-control, integrity, intelligence, a sense of accountability, or all our prosperity will be corrupted until it becomes a rotting, festering ruin.

Second: There is a debt to the past.

There are two sorts of people in the world as regards the payment of debts. One seeks to meet all moral obligations; the other to pay what can be collected by law, glad to secure as many advantages as possible without making any return. I speak to the first class. I suppose that no American will declare that self-government has been a failure. It would be idle to affirm that it has worked smoothly and to our entire satisfaction. Intemperance of various kinds, our inheritance by immigration from the despotism of the old world; a vast negro population made what it is by two hundred and fifty

years of slavery, and twenty-five years of outrage and neglect are our chief hindrances and dangers. The men for whom I write appreciate the many defects, difficulties and dangers which still confront the self-controlling nations; but they believe that the evils of representative democracy are less than those of Kingdom or Empire.

Now self-government is the product of the college. Kings founded colleges and their thrones were overturned by them. The Saxon race has led the world in the struggle for the rights of man, and the Saxons were themselves led by a little group of school men. Luther started and maintained the truths which have made the foundation on which the liberties and institutions of one hundred millions of Anglo-Saxon freemen rest to-day. His co-laborers in Germany and other lands were also university men.

Every business man who is glad that he is free and clothed with civil power, every business man who is glad that his children are not the slaves or serfs of kings, every business man who is glad to have freemen for customers, owes a debt to these christian colleges which have secured civil liberty for the free nations.

Third: There is a common opinion that colleges have done nothing directly toward the industrial development of our land; that whatever they may have done in the direction of character building, they have been of no use at all in the way of national progress. It may be admitted that the principal and immediate aim of the college is not to increase one's power to get money. It does not follow that it has had nothing to do with it. Has astronomical science nothing to do with progress in the commercial world? Has chemistry nothing to do with medicine and agriculture? Was Prof. Morse, the inventor of the telegraph, an example of the uselessness of college men? It is conceded that the present superiority of German mills in certain lines of manufacture is owing to the trained chemists whose services they command. Take out from the business world today the appliances and

sciences which have come to it from college halls, and you would turn back the hands on the dial of the world's progress at least three hundred years.

Our business men are perplexed with calls; church work humanitarian enterprises and social life, all claim their share. To feed or clothe the poor, to care for the sick and dying, to minister to those who have been thrown off the train of material prosperity or who have been crushed beneath its wheels, is the dictate of both religion and humanity. One may do all this, however, and yet fail to contribute to the more far-reaching needs of both the man and the nation. It is better economy to train men to govern themselves than to govern them with guns. It is cheaper to train men to care for themselves than it is to care for them. It is better to make one raw, untrained lad into a wise, far-sighted, well balanced man, able and willing to care for a thousand others, than to endow a bed in a hospital or feed a hundred beggars for a year.

Fourth: A few common errors respecting colleges are of so great moment as to justify mention here.

First: It is a serious mistake to suppose that the best work can be done in a very large school. It is not unusual to hear it said that our colleges should be combined into a great university; that there is a great loss of capital and teaching power resulting from the number of our schools for higher instruction, etc. The answer to these and similar remarks is that as soon as the number of pupils passes the limit of possible personal supervision on the part of the faculty, there results one of two things: either the student is committed to the care of subordinates, or he has no care at all. The latter is usually the case.

Still further: The value of an education is usually proportioned to the effort put forth in securing it. Men who go to college with every want supplied at no cost of thought or labor on their own part are not the strong scholars while in college, nor the strong men out of it. Now a large number of colleges of moderate size wisely located throughout the

country will attract thousands of these hard-working men where a few great schools would secure tens.

Second: Large towns are not most favorable locations for colleges. Law, medicine, theology, and technical schools, for various reasons, are profited by city sites. The college student is, however, in a different state. He is, on the average, four years younger. He needs nothing that he cannot secure in the small town. He will be better acquainted with his instructors, better known to his fellows, more exempt from the temptations peculiar to large towns, if he is educated at a distance from them.

Planting christian schools one becomes the benefactor of the select minds of this day. He helps the young men who put aside for a time pleasure and gain for the cultivation of the soul. These pupils come from scores and hundreds of towns, and they carry the seeds of civilization with them to the ends of the earth. They are the advance guards of commerce, the layers of foundations for art, eloquence, architecture, liberty and religion throughout the world. What can business men do which will return a better interest on the investment than to become partners in a work like this?

ALUMNI RECORD.

GRADUATES OF ALBION FEMALE COLLEGIATE INSTITUTE.

Adams, Augusta M., M. A. S , 1853, Coburg, Ontario.
Anthony, Augusta (Whiting,) M. A. S., 1863, Albion.
Aylworth, Minnie (Rose,) M. A. S., 1858, South Haven.
Barnes, Harriet (Doty,) M. A. S., 1855, Lexington.
Barnard, Mattie (Marsh,) M. A. S., 1858, Eaton Rapids.
Baker, Rena (Morrison,) M. A. S., 1860, Chicago, Ill.
Barber, Prudence A., M. A. S., 1859, Died in Parma in 1869.
Banfield, Sarah M., M. A. S., 1861, Deceased.
Bates, Eusebia (More,) M. A. S., Cleveland, 1861, Ohio.
Bellows, Anna E., M. A. S., 1858.
Booth, Henrietta P., M. A. S., 1857.
Brooks, Harriet (Brewer,) M. A. S., 1854, Chicago, Ill.
Billinghurst, Jennie M., M. A. S., 1858.
Bick, Nannie (Diamond,) M. A. S., 1858, Santa Clara, Cal.
Briggs, Mary (Gould,) M. A. S., 1861, Battle Creek.
Brown, Jennie (Barrett) M. A. S., 1863, Blissfield.
Burnham, Fidelia (Cowen,) M. A. S., 1854, Union City.
Cobb, Charlotte S. M. A. S., 1851, Galveston, Texas.
Church, Almira M. A. S., 1854.
Church, Laura M. A. S., 1855.
Coyle, Jennie M. A. S., 1857, Detroit.
Comstock, Mary M. A. S., 1858.
Chamberlin, Louise (Morrison,) M. A. S., 1859, Brimfield, Ill.
Craig, Mary (Davenport,) M. A. S., 1863.
Cotton, Celia (Robertson,) M. A. S., 1863. Brooklyn, N. Y.
Cleveland, Jane (Thompson,) M. A. S., 1855, Plymouth, Ind.
Davenport, Libbie (Fassett,) M. A. S., 1860, Fallassburg.
Dennis, Alvira M. A. S., 1851, New Orleans, La.
Dodge, Huldah (Pratt,) M. A. S., 1854.

Donaldson, Maria (Crane,) M. A. S., 1859, Port Huron.
Dunshee, Bessie (French,) M. A. S., 1860, Thompson, Ill.
Davidson, Helen (Loomis,) M. A. S., 1861, Port Huron.
Dutton, Ellen (Beaver,) M. A. S., 1858, Albion.
Emmons, Elizabeth M. A. S., 1859.
Earl, Antoinette (Bessac.) M. A. S., 1860, Marquette.
Eslow, Lottie (Peirce,) M. A. S., 1860. Died at Albion 1871.
Fish, Sally (Rulison,) M. A. S., 1859, M. S., 1868, Flint.
Fowler, Timna M. A. S., 1851.
Fellows, Emeline M. A. S., 1853.
Foster, Martha M. M. A. S., 1855.
French, Clara T. M. A. S. 1859.
Grimes, Minnie M. A. S., 1864.
Gemberling, Juliet (Bradbury,) M. A. S., 1855, Albion.
Grover, Adelaide (Clark,) M. A. S., 1859, Homer.
Gardner, Maria (Farley,) M. A. S. 1857, Northville.
Graves, Catherine (Robertson,) M. A. S., 1859. Deceased.
Green, Sarah N. M. A. S. 1860, Geneva.
Gould, Carrie M. A. S., 1863, Battle Creek.
Gage, Hattie (Marsh.) M. A. S., 1863, Mason City, Iowa.
Humphrey, Ada E. M. A. S., 1851.
Houston, Sarah M. A. S., 1852. Deceased.
Hazlett, Mary (Brown,) M. A. S., 1857, Hudson. Public Speaker.
Harvey, Nettie (Gelston,) M. A. S., 1858, Ann Arbor.
Herrick, Deborah (Kettlestrings,) M. A. S., 1858, Oak Park, Ill.
Hazzard, Huldah E. M. A. S., 1860.
Henion, Sarah (Smith,) M. A, S., 1861, Bay City.
Holden, Jennie (Davenport,) M. A. S., 1862, Fallassburg.
Haanel, Emma (Fox,) M. A. S., 1863, St. Louis, Mo.
Imus, Henrietta M. A. S., 1856, Galesburg.
Ives, Elizabeth (Cowan,) M. A. S., 1861, Mason.
Johnson, Elizabeth M. A. S., 1854.
Johnson, Mary Z., M. A. S., 1856.
Johnson, Minnie (Spencer), M. A. S., 1861, Detroit.
Jackson, Frances (Lacy), M. A. S., 1857, Pontiac.

Kingsbury, Helen (DeLameter), M. A. S., 1855, Livermore, Cal.
Kritzer, Roxina, M. A. S., 1855. Died in Albion in 1857.
Kinney, Jennie (Bristol), M. A. S., 1856, Ypsilanti.
LaTour, Sarah (Loomis), M. A. S., 1860, Detroit.
Loud, Sarah (Tuttle), M. A. S., 1863, mother of E. R. L., Albion.
Mahon, Grace (Dayton), M. A. S., 1855, East Saginaw.
Mayhew, Ellen S., M. A. S., 1858, Detroit.
Marsh, Cilicia M. A. S., 1861, Gilead.
Nichols, Franc (Saunders), M. A. S., 1864, Detroit.
Organ, Catherine E., M. A. S., 1854.
Olin, Amy R., M. A. S., 1860.
Olin, Amanda G., M. A. S., 1860.
Page, Alice (Morehouse), M. A. S., 1863, Adrian.
Perrine, Livonia (Benedict), M. A. S., 1851, A. M., mother of L. L. P., '80, and F. M. P., '87, Grand Rapids, Dakota.
Phelps, Caroline (Dean), M. A. S., 1852, Detroit.
Pettee, Lydia (House), M. A. S., 1853, Cleveland.
Perry, Isabelle, M. A. S., 1854.
Packard, Harriet Thompson, M. A. S., 1855. Died 1884.
Pilcher, Lucy M. (Porter), M. A. S. 1856. Died at Jackson 1870.
Poe, Mariah S., M. A. S., 1858, A. M.
Parsons, Mary (Farley), M. A. S., 1859, Albion.
Pierce, Mary Lamond, M. A. S., 1860, Flint.
Pope, Antoinette (Adams), M. A. S., 1861, Parma.
Palmer, Hannah (Borden), M. A. S., 1862, Hubbardstown.
Robinson, Sarah (Crittenden), M. A. S., 1857, Albion.
Rowe, Emily R., M. A. S., 1851, Sharon.
Reynolds, Sarah (Galloway), M. A. S., 1854.
Rowe, Clara C., M. A. S., 1854. Deceased.
Russell, Jennie (Phelps), M. A. S., 1863, Grand Rapids.
Robinson, Eliza (Ingham), M. A. S., 1859, Grand Haven.
Robinson, Arlina (Wood), M. A. S., 1860. Died, at Greenville, 1878.
Rice, A. (Borden), M. A. S., 1862, Hubbardstown.

Rork, Ursula (Tuttle), M. A. S., 1852, mother of E. L. R., L. M. R., and G. A. R., Agnew, Mich.
Smith, Ellen M., M. A. S., 1852.
Smith, Cornelia (Sabin), M. A. S., 1852, Homer.
Smith, Louise (Reddick,) M. A. S., 1854, mother of C. R. S., '86, Coldwater.
Scranton, Augusta S. M. A. S., 1855. Deceased.
Shears, Clarissa (Childs,) M. A. S., 1856. Died at Malone, N. Y., 1885.
Sturgis, Ellen (Steele,) M. A. S., 1858, Scipio.
Sturgis, Mattie C., M. A. S., 1858, Scipio.
Sturgis, Mary F., M. A. S., 1858, Scipio.
Sample, Mary M., M. A. S., 1860. Deceased.
Senix, Christa (McArthur,) M. A. S., 1863, Kalamazoo.
Staples, Frances C., M. A. S., 1863, Albion.
Staples, Lucelia E., M. A. S., 1863 Albion.
Turner, Madelon L. (Stockwell), M. A. S., 1863, A. B., 1872 in U. of M., Kalamazoo.
Vining, Elizabeth M., M. A. S., 1858.
Webster, Sarah A., M. A. S., 1852, Marshall.
Wesson, Anna (Dayton,) M. A. S., 1863, Flint.
Williams, Almeda M. A. S., 1875.
Winchell, Charlotte (Imus), M. A. S., 1856, Madison, Wis.
Wooley, Catherine (Phillips), M. A. S., 1856, Chicago, Ill.
Yule, Pamelia (Vining), M. A. S., 1856, Brantford, O.

GRADUATES OF THE COLLEGE OF LIBERAL ARTS.

Allen, C. Victor Ph. B., 1888, Commercial Traveler. Chicago, Ill.

Allen, Gertrude, A. B., 1884, A. M., 1885. Teacher of Languages in High School, Ionia.

Allman, William H., A. B., 1876. A. M., 1879. Clergyman in Detroit Conference of M. E. Church.

Ambler, William E., B. S., 1865, A. M., at Hillsdale. LL. B., at Albany. Practicing Law, Pentwater.

Arnold, Sella, B. A., 1887. A Deconess in M. E. Church, Marquette.

Abernethy, Elmer Fiske, A. B., 1886. Superintendent Public Schools, Iron Mountain.

Abernethy, Ella (Kingsley), Ph. B., 1886, Iron Mountain.

Bacon, Jessie (Snell,) Ph B., 1883, Bad Axe.

Bacon. Lyman Walter, A. B., 1882. Principal of Public Schools, Bad Axe.

Bancroft, Edward Bennett, A. B., 1876. A. M., 1869. B. D., Boston University 1880. Clergyman in Detroit Conference. Detroit.

Bowers, Alice E., B. S., 1870, Manchester.

Bowers, George Edmund, Ph. B.. 1880, Editor of Hillsboro Banner, Hillsboro, Dak.

Bowers, Clara (Collar), Ph. B.. 1880, Hillsboro, Dak.

Bradley, Alva A. B., 1871, Lumber Merchant, Duluth. Minn.

Brockway Ella (Hoag,) B. S., 1871, Ph. M., 1888., Preceptress Albion College, Albion.

Brown, John Ging, A. B., 1871. Ph. C., at U. of M., 1873, Dealer in Drugs and Books, Albion.

Buell, George Abram, B. S., 1877, Clergyman in Mich. Conference, Shelby.

Buell, John W., A. B., 1884, Clergyman in Mich. Conference. Byron Center.

Brown, Chas. Champlain A. B., 1880, Agent of Hanford Oil Company, Chicago, Ill.

Brown, George Perry, B. S., 1880, Lawyer, Marquette.

Brady, John A., A. B., 1886, Clergyman of M. E. Church, Reno, Nevada.

Bennett, Ben. Ph. B., 1886, Superintendent of Public Schools, West Branch.

Bibbins, Arthur E., Ph. B., 1887, Student in Biology at Johns Hopkins University, Baltimore, Md.

Buck, Rosa (Knapp,) B. S., 1877, Stevensville, Mont.

Bush, Sabra, (Crose,) B. S., 1872, Vicksburg.

Bell, Jessie, (Mattheson,) B. S., 1872, Springfield, Wis.

Bailey, Mary, (Taylor,) B. S., 1880 Dawson, Dakota.

Beard, Maud M., A. B., 1889, Preceptress of High School, Corunna.

Bailey, George Leroy, B. S., 1876, M. S., 1879, M. D., Hahneman Med. Coll., Chicago, 1879, member of Homœopathic Society, died June 21, 1883, at Battle Creek, Mich.

Cook, Joseph, A. B., 1888, clergyman in Mich. Conference, Parkville.

Cook, William T., A. B., 1888, clergyman in Mich. Conference, Saugatuck.

Chase, John C., A. B., 1888, clergyman in Mich. Conference, Banfield.

Chase, Chas. Henry, Ph. B., 1878, editor of Anderson Journal, Anderson, Ind.

Clark, E. Josephine, A. B., 1868, A. M., 1871, teacher in Albion College, Albion.

Cole, George L., A. B., 1869, clergyman of M. E. church, Mich. Conf., 1867–'77, Supt. Epworth League 14th Conf. Dis., Long Beach, Cal.

Clark, Frank Ephraim, A. B., 1877, A. M., 1881, Commercial Traveler, Geneva, N. Y.

Clark, Bertha (Aldridge), A. B., 1876, A. M., 1879, Geneva, N. Y.

Clark, Reuben Emmet, A. B., 1872, cashier in Burnett Wholesale Commission House, Chicago, Ill.

Clark, Ada (Eslow), A. B., 1871, writer, Chicago, Ill.

Cushman, Thirza (Wright), A. B., 1869, A. M., 1882, Three Rivers.

Cooper, Elizabeth C., B. S., 1874, Homer.

Cooper, Alba M. (Stiles), Ph. B., 1884, Grand Haven.

Camburn, Jacob Champion, A. B., 1878, A. M., U. of M., 1879, agent for Battle Creek School Furniture Company, Battle Creek.

Clark, Ida (Leonard), Ph. B., 1881, Albion.

Clark, Arnold A., A. B., 1881, A. M., 1882, Chief Clerk of State Board of Health, Lansing.

Clough, Zina Albert, B. S., 1881, merchant, Lake Linden.

Carrier, Wilbur Oscar, Ph. B., 1883, clergyman in Presbyterian church, Wausaw, Wis.

Carrier, Mertie (Pitts), Ph. B., 1884, Wausaw, Wis.

Coney, Stella M., Ph. B., 1889, Preceptress High School, Dexter.

Critchett, John F., Ph. B., 1889, Student in Law, Monroe.

Darling, Marc W., A. B., 1870, A. M., 1873, at Albion, 1875 at Ann Arbor; pastor of First Congregational church, Sioux City, Iowa.

Darling, Clara (Woolson), A. B., 1869, A. M., 1873, Sioux City, Iowa.

Dickie, Mary (Brockway), A B., 1871, Temperance Worker, Albion.

Dickie, Samuel, B. S., 1872, M. S., 1879, Professor in Albion College in '77 to '88, Trustee of Albion College, Chairman of National Prohibition Committee, Albion.

Des Jardins, Paul, A. B., 1883, A. M., 1886, S. T. B., Boston University, 1888 Missionary in N. Y. City, Minister in Detroit Conference, Laingsburg.

DeCamp, Albert, Ph. B., 1880, LL. B., U. of M., 1883, Inventor, New Orleans, La.

DeCamp, Chas., A. B., 1885, Hardware Merchant, Durand.

DeCamp, Lillie, (Bitting), B. M., 1881, Durand.

Daniels, Grosvenor, Ph. B., 1880, clergyman in M. E. church, Denver, Colorado.

Davids, John W., A. B., 1882, A. M., 1889, Clergyman in M. E. Church, Anoka, Minn.

Davis, Dora B., A. B., 1889, Clerk in office of Probate Judge, Kalamazoo.

Doolittle, Hattie M., Ph. B., 1889. Teacher in High School, Mt. Pleasant.

Downing, Elliot R., B. S., 1889, Insurance Business, Port Payne, Ala.

Ellison, Ella (Wood), B. S., 1871, Alma.

Encke, John J., Ph. B., 1878, M. D., U. of M., 1883, Practicing Medicine, Newark, New Jersey.

Encke, Lewis, A. B., 1878, Farmer, Albion.

Edmonds, Edward Ames, B. S., 1889, Foreman Brokaw Paper Pulp Co., Kaukauna, Wis.

Fitch, Nellie A., B. S., 1868, M. S., 1871, Clerk of Board of Improvements, Cleveland, O.

Fassett, John H., A. B., 1870, A. M., 1873, Farmer, Ashton, Dakota.

Fitch, Mary (Peabody), B. S., 1871, Cleveland, O.

Fallass, Chas. W., B. S., 1873, Member of Grand Rapids Bar, Real Estate Agent, Grand Rapids.

Fallass, Ida, (Sharer,) Ph. B., 1882, Grand Rapids.

Farley, Wm. Dwelle, A. B., 1879, Furniture Dealer, Battle Creek.

Felker, Henry J., B. S., 1872, Lawyer, Grand Rapids.

Felker, Lois, (Teesdale) B. S., 1873, Grand Rapids.

Fairbanks, Ira A., A. B., 1881, Farmer, Dawson, Dakota.

Fallass, Ermina, Ph. B., 1882, Ph. D. at De Pauw, 1888, Teacher in De Pauw University, Greencastle, Ind.

Folks, Homer, A. B., 1889, Student at Harvard, Cambridge, Massachusetts.

Gould, Lucius T., A. B., 1888, Principal of High School, Putnam, Conn.

Graham, Hugh A., A. B., 1887, Student at U. of M., Ann Arbor.

Gordon, Chas. H., B. S., 1886, Principal of Wells School, Keokuk, Iowa.

Griffin, William L., A. B., 1884, M. D., at U. of M., 1887, Practicing Medicine, Shelby.

Griffin, Emma, (Foote,) Ph. B. 1883, Shelby.

Gibson, Henry, B. S., 1865.

Griswold, Mettie, (Morrison,) B. S., 1871, Artist, Chicago.

Griffin, Minnie, (Brooks,) A. B., 1879, Evanston, Ill.

Gillett, Augustus H., 1871, A. M., 1874, D. D., Secretary of S. S. Union, Wyoming, O.

Gregory, Rose A., B. S., 1882, Gen. Agent of a Detroit Publishing House from 1883 to 1885, Gen. Agent for R. S. Peale & Co., Publishers, Chicago, from '85 to '88; agent for Alumni Professorship Fund in 1889, Albion.

Graham, W. S. C., Ph. B., 1883, Merchant, Grand Rapids.

Harris, J. Herbert, B. S., 1873. Deceased.

Hagle, Anson, B. S., 1888, General Agent for Darling Bros., Detroit.

Houghtaling, Jennie N., Ph. B., 1888, Principal of High School, Marine City.

Houghton, Spencer, A. B., 1887, Supt. of Schools, Northville.

Haley, George Wade, A. B., 1885, Student in McCormick Theological School, Presbyterian Minister in Decatur, Chicago, Illinois.

Harmon, Chauncy S., Ph. B., 1885, Prin. of High School, Arcola, Ill.

Howard, Meta, B. S., 1884, M. S., 1885, M. D., 1887, Missionary to Korea, Albion.

Howard, Mary, B. S., 1885, Albion.

Haven, Jennie, B. S., 1869, M. S., 1872, Albion.

Haanel, Julia (Darling), B. S., 1870, Coburg, Ontario.

Hall, Lora, A. B., 1870, Teacher in Soldier's Home, Atchison, Kan.

Hoag, Dicia (Reed), B. S., 1870, Springport.

Hoag, Lucy, B. S., 1872, M. D. at U. of M., 1883 Missionary W. F. M. S., Chinkiang, China.

Hall, John M., B. S., 1876, M. S., 1879, Trustee of College, Supt. Bay View Assembly, Flint.

Hunsberger, Wesley A., Ph. B., 1878, Clergyman in Mich. Conference, Coldwater.

Hampton, Mary S., A. B., 1880, Missionary W. F. M. S., Hakodata, Japan.

Howard, Chas. F., Ph. B., 1880, Lawyer, Redfield, Dak.

Hallenbeck, John W., A. B., 1873, A. M., 1879, Clergyman in Mich. Conference, Carson City.

Hull, Olive B., B. S., 18 7, Teacher of History of Lit. in Seminary, Janesville, Wis.

Hipp, Henry G., B. S., 1889, Teacher in High School, Lansing.

Jones, Shelley B., B. S., 1888, Greenville.

Janes, Fred N., B. S., 1873, Clergyman Mich. Conference, Penfield.

Jones, Chas. W., B. S., 1873, Clergyman Mich. Conference, Casnovia.

Jocelyn, James Curtis, B. S., 1876, M. S., 1879, Supt. of Shoe Factory for C. H. Fargo & Co., Jackson.

Jocelyn, Kate Alma, A. B., 1869. Died at Albion, Jan. 1, '72.

Kimball, Chas. M., B. S., 1888. Died at Martin, Feb. 12, '90.

Knappen, Geo. F., Ph. B., 1887, Cashier in Bank, Sioux Falls, Dakota.

Knappan, Nellie, Ph. B., 1887, Principal of High School, Mason.

Keenan, Rose, (Oldman,) Ph. B., 1887, Buffalo, N. Y.

Knapp, Lebbeus Jerred, B. S., 1884, Studied Law at U. of M., Lawyer, Stevensville, Mont.

Keedy, Florence, Ph. B., 1879, Kenosha, Wis.

Kleeman, Addie, (Wright,) B. M., 1880, Chicago, Ill.

Knox, David, A. B., 1869, A. M., 1872, Lawyer, Trustee of College, Three Rivers.

Loomis, Frank H., A. B., 1887, Studying Medicine in U. of M., Ann Arbor.

Loomis, Geo. W., A. B., 1886, Superintendent of Schools, Manchester.

Loomis, Merrit F., B. S., 1884, Clergyman in Mich. Conference, Olivet.

Lavander, Franc J., A. B., 1876, Studied Law, Alton.

Laubach, Geo., A. B., 1877, Music Teacher, Otsego.

Lovejoy, Luther E., A. B., 1889, Clergyman Mich. Conference, Three Oaks.

Mather, E. O., A. B., 1888, Studied Theology in Boston University, Clergyman Michigan Conference, Homer.

Mather, Cora E., Ph. B., 1887, Preceptress of High School, Ligonier, Ind.

Martin, T. J., Ph. B., 1887, Lawyer, Sault St. Marie.

Moon, Edgar L., A. B., 1886, Minister in Detroit Conference, Unionville.

Mann, Chas. E., B. S., 1867, Wheaton, Ill.

Miller, Chas. S., Ph. B., 1879, Fairmount, Neb., Banker.

Miller, Minnie, (Divine,) Ph. B., 1881, Fairmount, Neb.

Morehouse, Lucy, (Foote,) A. B., 1869, A. M., 1872, Temperance Worker, Big Rapids.

Mount, Geo. L., A. B., 1871, A. M., 1874, Clergyman Mich. Conference, Elsie.

Mason, Elma L., Ph. B. 1880, Teacher in Soldiers' Home, Atchison, Kansas.

Marsh, Will Clark, Ph. B. 1880, M. D., U. of M., 1883, Practicing Medicine, Quincy.

McDonald, Marion, A. B., 1881, Stndent in U. of M., Ann Arbor.

Mosher, Wm. P., B. S., 1882, Clergyman Mich. Conference, Parma.

Moots, Cornelia (Chilson), A. B., 1882, Temperance Worker and Writer, West Bay City.

McCarthy, Joseph P., A. B., 1888, Lawyer, Chicago, Ill.

McCarthy, Lizzie (Rhines,) Ph. B., 1886, Chicago, Ill.

Morris, Hugh Coventry, A. B., 1885, Lawyer, Marlette.

McCoy, Frank L., A. B., 1884, Ph. D., Syracuse Univ. 1886, Editor Indian Witness, Calcutta, India, Presiding Elder Calcuta D strict, Died on Foreign Missionary Field, Feb. 13th, 1889.

Master, Sheriden F., Ph. B., 1889, Student in Law, Kalamazoo.

Norris, Mary C., A. B., 1888, Rochester, N. Y.

North, Elmer D. B. S., 1870, M. S., 1873, M. D., Practicing Medicine, Lansing.

Northrup, Henry C., A. B., 1870, A. M., 1873, B. D. Garrett Biblical Institute, Evanston, 1873, Clergyman Detroit Conference, Trustee Albion College 1882 to '90, St. Clair.

Norton, Ada A., Ph. B., 1877, Preceptress of High School, Ypsilanti.

Ott, Harvey Newton, Ph. B., 1889, Student of Biology U. of M., Ann Arbor.

Osburn, May A., A. B., 1889, Preceptress of High School, Vicksburg.

Perrine, Florence M., A. B., 1887, Missionary Teacher, Lucknow, India.

Perrine, Lura L., A. B., 1880, Teacher, Medbery, Dak.

Parkinson, J. A., A. B., 1869, A. M., 1879, Lawyer, Jackson.

Powell, Horatio N., B. S., 1870. Died at Muskegon, Jan., 1889.

Pierce, P. Della, A. B., 1877, Saginaw City.

Pemberton, Nellie E., Ph. B., 1880, Teacher, Morley.

Reed, Milton O., Ph. B., 1885, Professor in College of Montana, Deer Lodge, Mont.

Rice, John M., A. B., 1865, Lawyer, Cadillac.

Robertson, Pœbe, B. S., 1869, Albion.

Riddick, I. H., A. B., 1870, A. M., 1879, Clergyman Detroit Conference, Menominee.

Ranger, Chas. M., A. B , 1877, Dealer in Furniture, Battle Creek.

Ranger, Lillie (Robertson), B. S., 1877, Battle Creek.

Richards, N. A., Ph. B., 1877, Supt. of Schools, Greenville.

Roach, John M., A. B., 1877, Sault St. Marie.

Robertson, Clara, B. S., 1877, Teacher in High School, Albion.

Ray, Fisk M., Ph. B., 1889, Jackson.

Schall, Bina C., Ph. B., 1888, Teacher, Anoka, Minn.

Scripps, Herman C., A. B., 1888, Student in Boston University, Boston, Mass.

Snell, Wm., Ph. B., 1887, Cashier in Bank, Sault St. Marie.

Smart, Minnie E., A. B., 1887, Preceptress High School, Mt. Clemens.

Smith, Carmi R., B. S., 1886, Niles.

Springer, Durand W. B. S., 1886, Teacher in Commercial School, Ypsilanti.

Southworth, Emma, L., Ph. B., 1886, Teacher in High School, Flint.

Swarthout, Elvin, Ph. B., 1885, Ph. M., 1887, LL. B., at U. of M., 1888, Grand Rapids.

Swarthout, Lizzie (Master), A. B., 1885, Grand Rapids.

Stonex, Henry A., A. B., 1870, M. D., Preaching, Long Rapids.

Stonex, W. L., A. B., 1870, Lawyer, Goshen, Ind.

Steele, Wm., A. B., 1880, Journalist, Author.

Swarthout, Gauin, A. B., 1881, Merchant, Union City.

Squier, Eliza C., Ph. B., 1881, Teacher, Cadillac.

Slocum, Eva (Leonard), Ph. B., 1881, Assistant Editor, Caro.

Southworth, Florine, Ph. B, 1883, Teacher in Public Schools, Albion.

Stevens, Anna, A. B., 1887, Teacher of Latin and Greek in High School, Streator, I l.

Torrey, Lewis, Ph. B., 1884, Lawyer, Detroit.

Thornton, Lu (Allman), A. B., 1869, A. M., '72, Sturgis.

Turner, Chas. C., B. S., 1876, Minister Detroit Conference, Escanaba.

Taylor, Frank M., Ph. B., 1887, Farmer, Dawson, Dak.

Tarr, Cora Bell, Ph. B., 1884, International Sec. of Y. W. C. A., Chicago, Ill.

Tharrett, Maggie (Woolsey), B. S., 1883, Teacher of Sciences in Marshall High School, Marshall.

Tate, Samuel L., A. B., 1869, A. M., 1869, LL. D., of firm of Pettingue & Tate, Sioux Falls, Dak.

Travis, Ira D., Ph. B., 1889, Student in Law, U. of M., Ann Arbor.

Underwood, L. W., B. S., 1886, M. S., 1889, Prof. of Math. and Astronomy in Lawrence University, Appleton, Wis.

Van Loo, Will., Ph. B., 1886, Teacher of History and Science in Big Rapids High School, 1887 to 1888, Sec. of Senate Judiciary Committee, Mich. Legislature '89, Admitted to the Bar, '90.

Varion, Geo., B. S., 1879, M. S., 1885, Clergyman Mich. Conference, Coopersville.

Wolf, Henry E., A. B., 1886, S. T. B., '89, Clergyman Detroit Conference, Calumet.

Webster, Arthur F., A. B., 1885, Superintendent of Public Schools, Ludington.

Webster, W. C., A. B., 1887, Student in Johns Hopkins University, Baltimore, Md.

Waldo, Dwight B., Ph. B., 1887, Teacher in Albion College, 1887 to 1890, Student in Constitutional Law and Political Economy, Cambridge, Mass.

Walker, Ward, A. B., 1884, Athens.

Ward, Duncan M., A. B., 1871, Clergyman, Mich. Conference, DeWitt.

White, Lizzie, Ph. B. 1879, Teacher, Selina, Kansas.

Whitewam, Edward A., A. B., 1871, A. M., 1874, President Normal College, Madison, Neb.

Wilcox, Isaac, A. B., 1873, Clergyman Detroit Conference, Hancock.

Wilcox, Grace, (Wallace,) B. S., 1872, Hancock.

Welch, Chas. Rollin, A. B., 1880, Bookeeper, Jackson.

Webb, Arletta (Camburn,) A. B., 1880, Chicago, Ill.

Wartman, Ella, (Robertson,) A. B., 1876, Albion.

White, Will. S., Ph. B., 1889, Teacher, Flint.

Young, Robert, Ph. B., 1880, Clergyman Mich. Conference, Gilead.

GRADUATES FROM CONSERVATORY OF MUSIC.

Anderson, Ida '80, Detroit.
Austin, Lida '88, Morrice.
Adgate, Flora '89, Ionia.
Bidwell, Laura T. '87, Albion.
Babcock, Lena '77, Vineland, N. J.
Brown, Nettie (Clift), '79, Albion.
Brockway, Mary '80, Teacher of music, Mason.
Bartley, Maud '86, Grand Rapids.
Barnes, Mary '89, Duluth, Minn.
Bacon, Alice (Smalley), '85, Decatur.
Blanchard, Jessie '83, Died Aug. '84.
Carrier, Myrtie (Pitts), '81, Wausau, Wis.
Conklin, Wm. G. '82, Dowagiac.
Conklin, Alice I. '84, Dowagiac.
Crittenden, Emma L. '84, Teacher of music in Public Schools, Ionia.
Coney, Eva '87, Teacher of music, Vermontville.
Cassady, Anna '87, Jackson.
Corliss, Nettie '82, Albion.
Crissinger, Ella (Scranton), '85, Marion, Ohio.
DeCamp, Lillie (Bitting), '81, Durand.
Dudley, Anna '79, Holly.
Dorsey, Minnie (Clark), '84, Albion.
Fanning, May '86, Teacher of Painting, Albion.
Faxon, Minnie '85, Du Plain.
Fort, Addie (Harmon), '84. Teaching in Public Schools, Centreville.
Gifford, Nina (Phelps), '80, Detroit.
Gould, C. Blanche '88, Bellvedire, Ill.
Hartung, LuElla '88, Albion.
Howe, Nora (Hart), '86, Oak Grove.
Hanaw, Bettie '84, Jackson.

Hutchinson, May (Mann), '84, Concord.
Hook, Lou (Copp), '87, Ottawa, Ill.
Hull, Lina '87, Springport.
Iddings, Nellie (Gale), '82, Charlevoix.
Jackson, Lillian, '84, Teacher, Litchfield.
Jones, Emma (Crippen), '84, Grand Rapids.
Keedy, Jennie (Collins), '78, Hyde Park, Ill.
Kemp, Lina (Angevine), '79, Chelsea.
Kinney, Flora (Bates) '84, Emporia, Kan.
Kleeman, Addie (Wright) '80, Chicago, Ill.
Kirk, Lillian '89, Post-Graduate Work, Albion.
Lownsbery, Matie '89, Albion.
Longyear, Allie '83, Charlotte.
Landon, Genevieve (Rorabacher) '83, Augusta.
Loomis, Lottie (Berry) '87, Manchester.
Landon, Edith '86, Parma.
Lazelle, Hattie, A. '86, Manchester.
Linneberry, Cora (Hatch) '79, Jackson.
Mudge, Lulie (Torrey) '81, Omaha, Neb.
Moses, E. May '89, Seneca Falls, N. Y.
Murray, D. Belle '89, Homer.
Ott, Crissie '86, Albion.
Pennoyar, Mattie '79, Concord.
Pickett, Carrie (Covert) '83, McCook, Neb.
Prouty, Effie '86, Teacher in Hartford.
Robinson, Floy '88, Albion.
Reynolds, Hattie A. '84, Teaching in Jackson.
Reynolds, Florine (Defendorf) '89, Dowagiac.
Shepard, Sara '88, Parma.
Smith, Lillian '88, Teacher in Albion.
Smith, Belle '87, Albion.
Smith, Libbie '87, Marshall.
Smart, Lilla G. '88, Teacher in Flint.
Sprague, Della '88, Teacher in Rapid City, Dak.
Stafford, Franc A. '86, Port Hope.
Smith, Clara (Scofield) '86, Niles.

Spaulding, May '86, Teacher in Homer.
Snook, Ella '86, Teacher in Jackson.
Scranton, Minnie '84, Sault Ste. Marie.
Stevens, Annie '85, Teacher in Kansas.
Stanton, Dora (Showman) '83, Portland.
Snell, F. Maud '80, Teacher in Conservatory of Music Albion College, Albion.
Sheldon, Clara N. '82, Albion.
Sackett, Dora (Henderson) '79, Albion.
Smith, Emma (Smith) '80, Detroit.
Todd, Lola L. '88, Studying in Albion College, Albion.
Taylor, Nora H. '83, Jackson.
Vane, Kate (Collins) '79, Hyde Park, Ill.
Willard, Louisa '86, Hillsdale.
Worthington, Jennie A. '86, Teacher in Conservatory of Music Albion College, Albion.
Webster, Will C. '87, Studying at Johns Hopkins University, Baltimore, Md.
Young, Belle '86, Teacher in Public Schools, Tekonsha.

GRADUATES FROM SCHOOL OF PAINTING.

Andrews, Bertha E. '88, Flint.
Conklin, Lucinda A. '84, Dowagiac.
Dysinger, Sarada T. '89, Dundee.
Miller, Belle '89, Litchfield.

GRADUATES FROM THE COMMERCIAL DEPARTMENT.

Armstrong, William J. '88, Mendon.
Atherly, Clifton J. '89, South Haven.
Dearing, Harry R. '89, Deceased.
Dewey, Herbert A. '89, Concord.
Eslow, William C. '89, Albion.

Gale, O. Harry '89, Albion.
Garnsey, U. S. '89, Mays.
Jacobs, Elmer '89, Albion.
Kellogg, Andrew J. '88, Richland.
Klose, H. J. '89, Grand Rapids.
Marsh, Ernest M. '89, Albion.
Maynard, Yuba C. '88, Marshall.
Oldman, Alta E. '89, Albion.
Phelps, Charles A. '89, Grand Rapids.
Pool, Jay. F. '89, Augusta.
Rann, Earl R. '88, Morrice.
Rogers, Herman N. '89, Albion.
Seaman, Charles M. '88, Bailey.
Shuart, John R. '88, Wacousta.
Steinkraus, John '88, Albion.
Urch, Frank W. '89, Jackson.
Welch, George N. '88, Schoolcraft.

THE FOLLOWING IS A LIST OF GRADUATES AT PRESENT PURSUING POST-GRADUATE STUDIES IN OTHER INSTITUTIONS.

Bibbins, Arthur E. at Johns Hopkins University.
Folks, Homer at Harvard University.
Loomis, Frank H. at Michigan University.
Ott, Harvey N. at Mich. University.
Scripps, Herman C. at Boston University.
Travis, Ira T. at Mich. University.
Webster, Wm. C. at Johns Hopkins.
Waldo, Dwight B. at Harvard University.

The late hour at which the lists of Alumni were completed did not allow of re-arrangement for absolute alphabetical order.

CATALOGUE OF ALBION COLLEGE.

CORPORATION.

TRUSTEES.

L. R. FISKE, LL. D., *ex-officio*, President, Albion.

ELECTED BY THE DETROIT CONFERENCE.

Name.	*Residence.*	*Term Expires.*
Rev. H.C. Northrup, A.M. B.D.	St. Clair	1890
John M. Hall, A. M	Flint	1890
Hon. H. M. Loud	Oscoda	1891
Otis A. Critchett, A. M	Monroe	1891
Rev. J. S. Smart, D. D	Flint	1892
George O. Robinson, A. M	De'roit	1892

ELECTED BY MICHIGAN CONFERENCE.

Rev. Levi Master, A. M	Niles	1890
James W. Sheldon, Treas	Albion	1890
Hon. H. E. Staples	Whitehall	1891
Rev. W. H. Brockway, 1st V. Pres.	Albion	1891
Rev. John Graham, D. D	Grand Rapids	1892
Willis W. Cooper, Esq.,	St. Joseph	1892

ELECTED BY THE SOCIETY OF ALUMNI.

David Knox, A. M	Three Rivers	1890
Samuel Dickie, M. S., 2d V. Pres.	Albion	1891
Charles M. Ranger, A. B	Battle Creek	1892

ENDOWMENT FUND COMMITTEE.

Hon. Daniel Striker	Hastings	1892
S. P. Sidnam	Hastings	1895
Hon. Wm. H. Haze, M. D	Lansing	1898

SECRETARY OF BOARD OF TRUSTEES.

Professor Delos Fall, M. S. Albion

BOARD OF VISITORS AND EXAMINERS.

APPOINTED BY SUPERINTENDENT OF PUBLIC INSTRUCTION.

Hon. Perry Powers.....Cadillac.
Bertha McElhaney.....Bangor.
Isabella French.....Kalamazoo.

APPOINTED BY DETROIT CONFERENCE.

Rev. Geo. W. Hudson,.....East Saginaw
Rev. James H. Kilpatrick,.....Howell

APPOINTED BY MICHIGAN CONFERENCE.

Rev. L. E. Lenox,.....Sturgis
Rev. J. G. Crozier,.....Union City

STANDING COMMITTEES FOR 1889-90.

EXECUTIVE COMMITTEE.

L. R. Fiske, W. H. Brockway, Samuel Dickie, J. W. Sheldon.

AUDITING COMMITTEE.

L. R. Fiske, W. H. Brockway, Samuel Dickie, J. W. Sheldon.

FINANCE COMMITTEE.

O. A. Critchett, H. M. Loud, Samuel Dickie, Geo. O. Robinson.

COMMITTEE ON FACULTY.

Levi Master, John Graham, Willis W. Cooper.

COURSES OF STUDY.

L. R. Fiske, David Knox, H. C. Northrup, C. M. Ranger.

RULES AND REGULATIONS.

L. R. Fiske, John M. Hall, H. E. Staples; John Graham.

LIBRARY AND APPARATUS.

J. S. Smart, Levi Master, F. M. Taylor.

BUILDINGS AND GROUNDS.

L. R. Fiske, W. H. Brockway, J. W. Sheldon.

ASBURY CENTENARY ASSOCIATION.

OFFICERS.

President—Bishop Wm. X. Ninde, D. D., LL. D., Topeka, Ks. Vice Presidents—Pres. L. R. Fiske, D. D., LL. D., Albion; Gen. Clinton B. Fisk, New York; Hon. Thos. W. Palmer, A. M., Detroit; Julius Berkey, Esq., Grand Rapids. Secretary—Prof

Delos Fall, M. S., Albion; Corresponding Secretary—Rev. J. S. Smart, D. D., Flint; Treasurer—J. W. Sheldon, Esq., Albion.

BOARD OF MANAGERS.

The Bishops of the Methodist Episcopal Church and the Trustees of Albion College are, *ex-officio*, members of the Board of Managers.

MANAGERS ELECTED BY MICHIGAN CONFERENCE.

Rev. Geo. S. Hickey, A. M.	Jackson	1890
Rev. M. M. Callen, D. D.	Lansing	1890
Hon. J. W. Moon	Muskegon	1890
D. W. Peabody, Esq	Fenton	1890
O. R. Wilmarth, Esq	Grand Rapids	1890
Hon. Hampton Rich	Ionia	1890
Rev. J. A. Sprague	Three Rivers	1891
M. J. Bigelow, Esq	Kalamazoo	1891
W. P. Sidnam, Esq	Hastings	1891
Rev. N. L. Bray	Coldwater	1891
Rev. A. P. Moors	Ionia	1892
Rev. M. D. Carrol	Chicago, Ill	1892
F. N. Wright, Esq.,	Greenville	1892
Jacob C. Moore, Esq.,	Grand Rapids	1892
Wm. Van Loo, Esq.,	Big Rapids	1892

MANAGERS ELECTED BY DETROIT CONFERENCE.

Rev. Arthur Edwards, D. D.	Chicago, Ill	1890
Rev. John McEldowney, D. D.	Port Huron	1890
Rev. W. W. Washburn, D. D.	Saginaw	1890
Hon. John Owen	Detroit	1890
Hon. H. M. Loud	Oscoda	1890
T. C. Owen, Esq	Detroit	1890
Rev. J. E. Jacklin	Flint	1891
Albert Miller, Esq	Bay City	1891
Marshall H. Godfrey, Esq	Detroit	1891
Rev. L. P. Davis, A. M. D. D.	Detroit	1892
Rev. C. B. Spencer, A. M	Owosso	1892
Frank R. Beal, Esq	Northville	1892
Horace Hitchcock, Esq	Detroit	1892

BOARD OF INSTRUCTION.

LEWIS R. FISKE, PRESIDENT.

CARL B. SCHEFFLER, DIRECTOR OF CONSERVATORY.

ELLA HOAG BROCKWAY, PRECEPTRESS.

WASHINGTON GARDNER, PUBLIC LECTURER.

ROLLIN C. WELCH, SECRETARY.

REV. L. R. FISKE, D. D., LL. D.
John Owen Professorship of Intellectual and Moral Philosophy.

REV. ROLLIN C. WELCH, A. M., D. D.
John Morrison Reid Professorship of Greek Language and Literature.

DELOS FALL, M. S.
David Preston Professorship of Biology and Chemistry.

Samuel O. Knapp Professorship of Geology and Mineralogy.

FRED M. TAYLOR, A. M., Ph. D.,
Henry M. Loud Professorship of History.

CARL B. SCHEFFLER,
Piano, Harmony and Counterpoint.

SAMUEL D. BARR, A. M.
W. H. Brockway Professorship of Mathematics

ROBERT S. AVANN, A. M., Ph. D.,
Latin Language and Literature.

FREDERICK LUTZ, A. M.,
Modern Languages.

E. JOSEPHINE CLARK, A. M.,
English Language and Literature.

CHARLES E. BARR, A. M.
Ezra Bostwick Professorship of Astronomy.

REV. WASHINGTON GARDNER, A. M.,
Biblical History and Literature.

JENNIE A. WORTHINGTON,
Piano.

MARK B. BEAL,
Oratory.

ELLA HOAG BROCKWAY, Ph. M.
Musical History.

F. C. COURTER,
Drawing, Perspective and Painting.

MRS. H. W. MOSHER,
Decorating Painting.

DWIGHT B. WALDO, Ph. B.,
Instructor in German and History.

MATTIE A. REYNOLDS,
Violin and Guitar.

F. MAUD SNELL,
Piano.

ANNE MAY MORGAN,
Voice Culture.

ARAMINTA FREEMAN,
Piano and Organ.

CORA TRAVIS,
Piano and Voice.

CARY A. HEAD,
Principal of Commercial Department.

MAGGIE L. MILLER,
Teacher of Shorthand.

JOHN FRITZ,
Teacher of German.

FRED M. TAYLOR, A. M., Ph. D.,
Librarian.

REV. B. S. TAYLOR, M. D.,
Assistant Librarian.

STUDENTS IN COLLEGE OF LIBERAL ARTS.

GRADUATES STUDYING IN ABSENTIA FOR MASTER'S DEGREE.

NAME.	RESIDENCE.
Bibbins, Arthur E. Ph. B.	Hanover.
Gordon, Charles H. B. S.	Keokuk, Ia.
Waldo, Dwight B. Ph. B.	Ganges.

SENIORS.

NAME.	COURSE.	RESIDENCE.
Barnes, Flora G.	Gr Sc	Kalamazoo.
Barnhart, Alice H.	Cl	Charlotte.
Bristol, Maud E.	Cl	Albion.
Brown, Nathan P.	Cl	Fowlerville.
Bruce, Carrie M.	Let	Albion.
Coney, Ruth E.	Lat Sc	Albion.
Cunningham, E. R.	Lat Sc	Spring Arbor.
Fiske, Clarence A.	Cl	Albion.
Floody, Robert J.	Sc	Blythe, Ont.
Graves, Myrtie E.	Lat Sc	Albion.
Holmes, Will. L.	Sc	Eaton Rapids.
Kellogg, Arthur R.	Lat Sc	Quincy.
Laing, Jane M.	Lat Sc	Stony Creek.
Mudge, Mina	Sc	Hastings.
Peirce, Eugene C.	Cl	Birmingham.
Townsend, Edgar J.	Lat Sc	Litchfield.
Van Loo, Kingsley	Lat Sc	Big Rapids.
Wada, Seiki	Cl	Tokyo, Japan.
Weldon, Ira T.	Sc	Mosherville.

Cl.—Classical. Lat. Sc.—Latin Scientific. Sc.—Scientific. Let.—Letters.

JUNIORS.

NAME.	COURSE.	RESIDENCE.
Abbott, Lewis F.	Lat Sc	Galesburg.
Armstrong, Edward A.	Cl	Detroit.
Bartley, James H.	Sc	Grand Rapids.
Berkaw, George R.	Lat Sc	Parma.
Campbell, Jennie E.	Cl	South Haven.
Delbridge, James H.	Sc	Albion.
Goss, Etta	Let	Otsego.
Ishizaka, Masambu	Let	Tokyo, Japan.
Laberteaux, Frank	Sc	Albion.
Leonard, Otis A.	Lat Sc	Albion.
Lovejoy, Owen R.	Cl	Albion.
Mattice, Asa E.	Cl	Spring Arbor.
Parsons, Emma	Sc	Big Rapids.
Pierce, Dollie G.	Lat Sc	Utica.
Rogers, Ernest G.	Sc	Medina.
Rork, Lydia M.	Lat Sc	Agnew.
Welch, Mary D.	Cl	Schoolcraft.
Weyant, Fred N.	Lat Sc	Danby.
Wright, Geo. W.	Cl	May.
Wright, Lizzie M.	Let	May.

SOPHOMORES.

NAME.	COURSE.	RESIDENCE.
Allen, Charles B.	Cl	Spring Arbor.
Allen, Frank E.	Cl	Albion.
Anderson, Louis W.	Sc	Albion.
Armstrong. Jennie M.	Cl	Albion.
Barnhart, Amanda	Cl	Charlotte.
Barrett, Bertha	Let	Niles.
Bissell, Flora A.	Sc	Richland.
Bunday, George J.	Sc	Albion.
Burnham, Smith	Lat Sc	Climax.
Caster, Ella L.	Lat Sc	West Bay City.
Durfee, Fred W.	Sc	Plymouth.
Fair, John W.	Lat Sc	Bennington.
Ferguson, George B.	Sc	Albion.
Godfrey, Irving J.	Lat Sc	Parma.
Griffin, Stanley C.	Cl	Albion.
Haze, Harry A.	Let	Lansing.
Inamato, Otto O.	Cl	Hakodate, Japan.
Kulp, Essie R.	Cl	Otsego.
Landon, Arthur L.	Lat Sc	Springport.
Loud, Edward R.	Cl	Albion.
Lyons, Mary E.	Let	Corunna.
Manning, Effie M.	Let	Chesaning.
Maywood, W. Scott	Lat Sc	Menominee.
Munroe, Louise B.	Let	Bay City.
Niskern, Emery L.	Lat Sc	Manistee.
Palmatier, Charles H.	Cl	Bonfield.
Parmeter, Rolland L.	Sc	Albion.
Proctor, Clara L.	Sc	Wallace, Ill.
Robinson, Irvin E.	Cl	Lansing.
Rork, Emma L.	Let	Agnew.
Rork, Genevieve A.	Let	Agnew.
Sharer, Charles H.	Sc	Cedar Springs.
Staley, Fannie J	Cl	Grayling.
Staley, J. Wilson	Cl	Grayling.
Warren, Homer G.	Lat Sc	Flint.
Wilder, Allen J.	Cl	Tekonsha.

FRESHMEN.

NAME.	COURSE.	RESIDENCE.
Agard, Emma G.	Lat Sc	Litchfield.
Arnold, John F.	Cl	Albion.
Bass, John H.	Cl	Galesburg.
Ball, Rosa	Sc	Albion.
Boss, Hattie E.	Let	Caro.
Clark, Mabel Lee	Let	Kalamazoo.
Comstock, Ferner W.	Sc	Albion.
Cutler, Ira E.	Sc	Putnam, Conn.
Dickey, Anna L.	Sc	Marshall.
Dodds, Frank	Cl	Ionia.
Doolittle, Alice L.	Let	Albion.
Elder, Frances E.	Cl	Albion.
Engle, Wilbur I.	Cl	Petoskey.
Ford, R. Clyde	Lat Sc	Fitchfield.
Ford, Selden B.	Cl	Walworth.
Graves, James C.	Sc	Albion.
Hopkins, Mina	Cl	Owosso.
Jacobs, Charles S.	Cl	Albion.
Lampman, Walter A.	Lat Sc	Hastings.
Marshall, John J	Lat Sc	Aurelius.
Merrill, Clara E.	Lat Sc	Flint.
Merriman, Henry H.	Sc	Alto.
Millard, Hattie E.	Let	Lapeer.
Miller, Roy N.	Lat Sc	Mason.
Pierce, Frank S.	Cl	Utica.
Ray, Leslie G.	Sc	Ishpeming.
Resch, Merlin P.	Cl	Charlotte.
Rockafellow, Arthur H.	Lat Sc	Clare.
Roether, Wm. C.	Sc	Albion.
Schultz, Samuel	Lat Sc	Lansing.
Scott, Clara M.	Lat Sc	Vicksburg.
Scott, Jay H.	Lat Sc	Albion.
Sherk, Lou G.	Sc	Litchfield.
Simmons, Will H.	Cl	Marshall.
Smith, Dollie E.	Let	Eaton Rapids.
Turner, Susie E.	Let	Evart.
Urch, Mary E. G.	Sc	Albion.
Voke, Louis F.	Sc	Shane's Cros'ng, O
Warren, Oscar B.	Cl	St. Joseph.
Welch, John W.	Cl	Schoolcraft.
Wood, Wilford J.	Cl	Peru, Ind.
Wooton, J. Ralph	Cl	Hastings.
Wright, Warren W.	Sc	Ishpeming.

STUDENTS IN THE PREPARATORY SCHOOLS.

FOURTH PREPARATORY.

NAME.	COURSE.	RESIDENCE.
Batt, Nellie	Cl.	Tekonsha.
Beddow, Ira A.	Lat Sc	Southfield.
Brockway, Martha A.	Let	Albion.
Coggshall, Grace	Cl	Kalamazoo.
Cramton, Burton A.	Cl	Lapeer.
Deal, Clarence E.	Cl	Oshtemo.
Dunning, E. Clarence	Cl	Albion.
Estes, Arthur	Cl	Mendon.
Fillio, Uly, H.	Cl	Albion.
Graves, Harold T.	Lat Sc	Spiritwood, Dak.
Hull, Sydney	Sc	Albion.
Keller, Lulu	Let	Albion.
Marsh, Katie M.	Cl	Albion.
Maywood, A. Ames	Cl	Menominee.
Mitchell, Annie P.	Lat Sc	Marquette.
Newell, G. Glenn	Let	Grand Rapids.
Newman, Ralph M.	Cl	Jackson.
Rood, Clement E.	Cl	North Adams.
Smith, Claude J. P.	Lat Sc	Orland.
Smith, Charles E.	Cl	North Adams.
Snell, Tom C.	Sc	Albion.
Spence, William H.	Cl	Detroit.
Thrasher, Effie G.	Sc	Albion.
Yost, Grace	Sc	Albion.

THIRD PREPARATORY.

NAME.	COURSE.	RESIDENCE.
Birdsey, Corbin P.	Cl	St. Joseph.
Brown, Gertrude M.	Let	Albion.

Brundage, Gertrude E.	Lat Sc	Kalamazoo.
Clemo, Thomas W.	Cl	Bad Axe.
Elmer, Walter I.	Let	Harrisville.
Gibbs, Harry L.	Cl	Mayfield.
Grimes, A. Curtis	Lat Sc	Vermontville.
Howard, Will A.	Sc	Tekonsha.
Longstreet, Will R.	Lat Sc	Saginaw.
Ludlum, Headley O.	Cl	Ovid.
Mays, Vernon	Lat Sc	Albion.
Morehouse, Carl W.	Lat Sc	Albion.
Moulton, Forest	Cl	LeRoy.
Ravn, Anton H.	Sc	Oscoda.
Swarthout, Lloyd	Let	Ovid.

SECOND PREPARATORY.

NAME.	COURSE.	RESIDENCE.
Bailey, Hattie M.	Lat Sc	Albion.
Baker, Jessie M.	Let	Springport.
Carter, Wm. R.	Let	Fulton.
Clancy, Addie	Sc	Albion.
Clancy, Bennett	Cl	Albion.
Elder, Mary	Lat Sc	Albion.
Elder, Sarah	Lat Sc	Albion.
Ellis, Metta S.	Let	Clarendon.
Exner, William A.	Cl	Holt.
Ferguson, Teenie M.	Cl	Sherman.
Fow, Casper J.	Sc	Winfield.
Hawkins, Ira M.	Cl	Goshen, N. Y.
Hiller, Louise	Sc	Weldersville.
Jordan, Grace D.	Lat Sc	Cedar Springs.
Kirk, June E.	Let	Albion.
Kyes, David H.	Cl	Athens.
Middleton, Emory F.	Cl	Grand Rapids.
Perkey, Ernest	Cl	Albion.

FIRST PREPARATORY.

NAME.	COURSE.	RESIDENCE.
Austin, Mary H.	Lat Sc	Rice Creek.
Bowdish, Corydon L.	Cl	Stockbridge.
Brockway, P. Bruce	Lat Sc	Albion.
Caleb, Elizabeth E.	Lat Sc	Albion.
Champion, H. Louise	Let	Lansing.
Church, Mary H.	Cl	Albion.
Coykendall, Minnie M.	Cl	Albion.
Davis, Helen A.	Cl	Albion.
Dickie, Clarisa	Let	Albion.
Gardner, Theo. M.	Cl	Albion.
Gill, B. Ensign	Cl	Pauri, India.
Gill, Frank H.	Cl	Pauri, India.
Hodgkins, May I.	Lat Sc	Cedar Springs.
Leamon, Thomas H.	Let	Kalamazoo.
Mumbrue, Grace	Let	Albion.
Nahbenayash, Thos.	Cl	Munising.
Ott, Armetta L.	Sc	Albion.
Poppoff, Minko D.	Cl	Sistof, Bulgaria.
Preston, Ella V.	Let	Macomb.
Preston, Ina L.	Let	Macomb.
Robinson, William M.	Lat Sc	Eckford.
Selway, Blanche	Let	Dillon, Montana.
Selway, Delos	Let	Dillon, Montana.
Snell, Daisy	Lat Sc	Albion.
Starks, Blanche	Lat Sc	Rice Creek.
Ward, Ida A.	Sc	Albion.

DEPARTMENT OF ORATORY.

The full number of students pursuing the study of Oratory during the year is ***sixty-seven.*** As this is a regular department and the work counts as a literary study in the course, we give below only the names of special students not catalogued in other lists:

NAME.	RESIDENCE.
Allen, Alta M.	Albion.
Allen, Nettie	Albion.
Annis, Irene	Albion.
Annis, Minnie	Albion.
Beal, Herold M.	Albion.
Beal, L. H.	Albion.
Gardner, Mrs. N. B.	Albion.
Greeley, Mrs. Sarah	Albion.
Hayes, Mabel	Albion.
Miller, Maggie	Albion.
Powers, Clarence	Albion.
Sutherland, Mrs Belle	Albion.
Thomas, Zua	Albion.
Todd, Lola L.	San Francisco, Cal
Wood, Walter A.	Albion.

ACADEMIC.

NAME.	RESIDENCE.
Allison, Agnes E.	Albion.
Anson, Eva G.	Marshalltown, Ia.
Armstrong, Fred A.	Stockbridge.
Armstrong, Ransom S.	Chelsea.
Ball, Lettie C.	Albion.
Ball, Minnie	Albion.
Barnes, Nellie L.	Kalamazoo.
Beaghler, Pryse C.	Middlepoint, Ohio
Bellamy, Hattie	Pulaski.
Bellamy, Myra	Pulaski.
Benton, Myrtie A.	Lansing.
Billinghurst, Allen D.	Rice Creek.
Blackwood, John Y.	Northville.
Bowdish, Mattie	Stockbridge.
Bradley, May P.	Albion.
Brown, Bertha M.	St. Joseph.
Buck, Gertrude E.	Grand Rapids.
Canfield, Guy M.	Mt. Clemens.
Carrier, Etta M.	Lansing.
Chamberlain, Anna	Sonoma.
Chamberlain, Hattie	Sonoma.
Chapman, Ernest L.	Fowlerville.
Chapman, Mary S.	Fowlerville.
Childs, Irene	Calumet.
Clark, Irene	Albion.
Cotten, Ollie	Albion.
Cowan, Frank H.	Ovid.
Edmonds, M. May	Bellevue.
Farr, Henry P.	Sault Ste. Marie.
Faxon, Gertrude E.	Du Plain.
Fenn, Charles H.	East Tawas.

Fiske, Belle	Albion.
Ford, Alta	Birmingham.
Fox, Mabel R.	Albion.
Frost, Louis E.	Lansing.
Gale, Winnifred L.	Albion.
Hartung, Willow P.	Albion.
Hoag, Carrie	Parma.
Hudson, Ada L.	Akron, Ohio.
Hungerford, Hattie E.	Albion.
Kellogg, Fay	Albion.
Kellow, Charles	Ishpeming.
Kiehm, Ella	Mason.
Kirk, Lillian E.	Albion.
Linebaugh, Hattie	Albion.
Matthews, Ada C.	Albion.
Maynard, Willis E.	Marshall.
McCormick, Belle	Otisville.
McHattie, Ada C.	Cedar Springs.
McIntosh, Oliver A.	Davison.
McLean, Norman	Flint.
Meally, John E.	Detroit.
Miller, Grace	Albion.
Mygatt. Edgar S.	Augusta.
Nowlin, Herbert E.	Albion.
Omans, Frank D.	Greenland.
Osborn, Frank I.	Albion.
Peabody, Georgena D.	Fenton.
Proctor, Clark M.	Wallace, Ill.
Quayle, John	Ishpeming.
Roach, Frank	Sault Ste Marie.
Roberts, William H.	Ishpeming.
Robson, John	Ovid.
Rodgers, Jinks S.	Summerville.
Root, Clarence B.	Mason.
Ryan, Edward B.	Bay City.
Sanders, Fred L.	Eckford.

Sanders, Luella	Eckford.
Seeley, Mary	Climax.
Seeley, Nellie	Climax.
Semon, Bert D.	Albion.
Sheldon, Geo. F.	Albion.
Shepard, Jessie	Albion.
Shepard, Wirt	Albion.
Shipp, Frank J.	Eckford.
Simmons, Belding	Marshall.
Simmons, Edna M.	Marshall.
Skinner Henry	Marshall.
Sleight, Minnie E.	Bath.
Smith, Nellie O.	Portland.
Snell, Jos. W.	Albion.
Southworth, Don R.	Lansing.
Sprague, M. Fannie	East LeRoy.
Stout, Nellie M.	Evart.
Strickland, Clarence W.	Eaton Rapids.
Thompson, Jennie E.	Reed City.
Thompson, Myra B.	Albion.
Urch, W. H. B.	Jackson.
Walmoth, William	Detroit.
Weaver, William	Burnside.
Wells, Joseph J.	Athens.
Whitcomb, Will H.	Marshall.
White, James O.	West Bay City.
Wightman, Richard R.	Springport.
Wiselogel, Ethel	Pulaski.
Wightman, Renefrew A.	Albion.

STUDENTS IN CONSERVATORY OF MUSIC.

GRADUATES.

NAME.	RESIDENCE.
Bidwell, Laura T.	Sacramento, Cal.
Kirk, Lillian	Albion.

GRADE VII—GRADUATING CLASS.

Andrews, Lulu	Albion.
Bolster, Carrie M.	Albion.
Carr, Maud E.	Eaton Rapids.
Hull, Anna	Albion.
Miller, Belle	Litchfield.
Raub, Anna A.	Big Rapids.
Whitcomb, Jean M.	Marshall.
Whitacker, Kate R.	Parma.

GRADE VI.

Boynton, Lillian	St. Louis.
Engle, Ida M.	Petoskey.
Fiske, Belle	Albion.
Jackson, Lulu E.	Climax.
Keller, Lulu D.	Albion.
Linderman, Lizzie L.	South Haven.
Maywood, Chas. B.	Menominee.
Monroe, Aurora	Albion.
Mershom, Carrie E.	Hastings.
Olmstead, Nora	Concord.
Peck, Susie B.	Albion.
Rogers, Daisy	Medina.
Rork, Genevieve A.	Agnew.
Watson, Myrtie A.	Cedar Springs.
Wright, Lizzie M.	May.

GRADE V.

Buck, Gertrude E.	Grand Rapids.
Barrett, Bertha	Niles.
Brockway, Martha A.	Albion.
Cotton, Ollie M.	Albion.
Crittenden, Ora	Albion.
Dickie, Clarisa	Albion.
Ferguson, Teena M.	Sherman.
Galè, Winifred L.	Albion.
Jones, Tula A.	Albion.
Koons, Mary	White Oak.
Munroe, Louise	Bay City.
Morris, Minnie	Oberlin, O.
Manning, Effie M.	Chesaning.
Rouse, Lulu P.	Homer.
Shepard, Jessie	Albion.
Scotten, Anna M.	Plymouth.
Wright, Emma A.	North Adams.

GRADE IV.

Bunday, Blanche	Albion.
Childs, Irene	Calumet.
Colby, Jessie	Lansing.
Davis, Helen A.	Albion.
Emmons, Bertha E.	Albion.
Groff, Nellie F.	Albion.
Gifford, Charles A.	Eaton Rapids.
Hudson, Ada L.	Akron, O.
Harris, Mamie	Lake Linden.
King, Fanny	Albion.
Kirk, June E.	Albion.
Lewis, Minnie O.	Litchfield.
McCormick, Belle	Otisville.
Roode, Kate	Albion.
Seeley, Nellie	Climax.
Seeley, Emma E.	Evart.
Stevens, Adelle	Albion.

Smith, Nellie O.	Portland.
Tucker, Maggie	Concord.

GRADE III.

Allen, Alta M.	Albion.
Bruce, Carrie M.	Albion.
Childs, L. Marion	Calumet.
Calkins, Jennie E.	South Lyons.
Dalrymple, Nellie	Albion.
Dissette, Fanny	Albion.
Dayton, Nellie A.	Albion.
Fox, Mabel R.	Albion.
Ford, Alta C.	Birmingham.
Hamlin, Zena	Eaton Rapids.
Lovejoy, Hattie A.	Albion.
Rouse, J. Leora	Homer.
Sturgis, Lovina	Bluffton, Ind.
Sleight, Minnie E.	Bath.
Wightman, R. A.	Albion.
Walmouth, Wm.	Detroit.

GRADE II.

Batt, Nellie	Tekonsha.
Barnes, Flora G.	Kalamazoo.
Cunningham, Mabel	Homer.
Fisher, Lulu	Albion.
Garnsey, Gussie	May.
Hall, G. Mattie	Concord.
Jacobs, Edith	Albion.
Jessup, Dora May	Dowagiac.
Matthews, Ada C.	Albion.
Palmer, Helen F.	Colon.
Thorp, Alma S.	Dillon, Mont.
Wisner, Edna	Mendon.

GRADE I.

Anson, Eva	Marshalltown, Ia.
Hopkins, Mina L.	Owosso.

Preston, Ella V.	Macomb.
Roberts, Wm. H.	Ishpeming.
Ruppert, Bertha	Detroit.
Wells, Joseph J.	Athens.

CLASS NOT GRADED.

Abernethy, Rose	Vicksburg.
Clark, Irene	Albion.
Travis, Cora E.	Hartford.

STUDENTS IN VOICE CULTURE, OR WHO RECEIVE INSTRUCTION ON OTHER INSTRUMENTS THAN THE PIANO.

NAME.	DEPARTMENT.	RESIDENCE.
Abernethy, Rose	Voice	Vicksburg.
Arnold, John F.	Reed Organ	Albion.
Barrett, Bertha	Voice–Pipe Organ	Niles.
Barnes, Flora G.	Voice	Kalamazoo.
Barnes, Nellie L.	Voice	Kalamazoo.
Barnhart, M. Amanda	Voice	Charlotte.
Beaman, Lillian	Voice—Violin	Evart.
Benton, Myrtle A.	Voice	Lansing.
Bissell, Flora A.	Voice	Richland.
Blackwood, John Y.	Voice	Northville.
Boss, Hattie E.	Voice	Caro.
Bowen, Frank W.	Voice	Albion.
Bowen, Mrs. Frank W.	Voice	Albion.
Boynton, Lillian M.	Voice–Reed Organ	St. Louis.
Brewer, Belle	Violin	Marshall.
Brown, Grace A.	Voice	Albion.
Bruce, Carrie M.	Voice	Albion.
Caleb, Lizzie E.	Violin	Albion.
Chamberlain, Edith	Violin	Horton.
Childs, Irene	Voice	Calumet.
Childs, L. Marion	Voice	Calumet.
Colby, Jessie	Voice	Lansing.
Corey, June W.	Voice	Concord.

Corliss, Arthur P.	Violin	Albion.
Cotton, Roger	Violin	Albion.
Cutler, Ira E.	Voice	Albion.
Dunbar, W. L.	Voice	Parma.
Dunning, E. Clarence	Voice	Albion.
Edmunds, M. May	Reed Organ	Bellevue.
Eggleston, Kittie	Violin	Marshall.
Fiske, Belle	Voice	Albion.
Fox, Mable R.	Voice	Albion.
Gale, Charles B.	Voice	Albion.
Gatrell, Catherine	Violin	Marshall.
Haight, Willie	Violin	Albion.
Harris, Mamie	Voice	Albion.
Hartung, LuElla	Voice	Albion.
Howard, Will H.	Guitar	Tekonsha.
Howlett, Marion G.	Voice	Albion.
Hull, Anna	Voice	Albion.
Ishizaka, Masambu	Voice	Tokyo, Japan.
Jackson, Lulu	Voice	Climax.
Jacobs, Leon	Violin	Albion.
Jacobs, Lottie E.	Violin	Albion.
Jerou, Essie	Violin	Marshall.
Jessup, Dora	Voice	Dowagiac.
Jordan, Grace	Voice	Cedar Springs.
Kern, Ota V.	Violin	Homer.
Koons, Mary	Guitar	White Oak.
Lewis, Minnie O.	Voice	Litchfield.
Lovejoy, Owen R.	Voice	Albion.
Ludlum, Headly O.	Voice	Ovid.
Matthews, Ada C.	Reed Organ	Albion.
Maywood, Charles G.	Pipe Organ	Menominee.
McHattie, Addie	Violin	Cedar Springs.
Millard Hattie	Voice	Lapeer.
Miller, Belle	Voice	Litchfield.
Munroe, Louise	Voice—Violin	Bay City.
Mudge, Mina	Voice	Hastings.

Newell, G. Glenn	Voice—Guitar	Grand Rapids.
Palmer, Helen F.	Guitar	Colon.
Parsons, Emma	Voice	Big Rapids.
Phelps, W. T.	Voice	Marshall.
Pray, Pearl	Violin	Dowagiac.
Preston, Ella V.	Voice—Violin	Macomb.
Preston, InaL.	Voice	Macomb.
Roberts, Maud M.	Voice	Albion.
Robinson, Irvin E.	Voice	Lansing.
Rodenbush, Frank	Violin	Albion.
Roode, Kate	Voice	Albion.
Rogers, Daisy	Guitar—Violin	Medina.
Rouse, J. Leora	Voice	Homer.
Rouse, Lulu P.	Voice	Homer.
Ruppert, Bertha C.	Voice	Detroit.
Scotten, Anna M.	Voice–Reed Organ	Plymouth.
Sackett, Ned	Voice	Albion.
Saunders, LuElla M.	Voice	Eckford.
Seeley, Emma	Voice—Guitar	Evart.
Seeley, Nellie	Voice	Climax.
Sharer, Charles H.	Guitar	Cedar Springs.
Smith, Nellie O.	Voice	Portland.
Stevens, Adelle	Voice—Guitar	Albion.
Starks, Blanche	Voice	Rice Creek.
Strong, Ella J.	Pipe Organ	Homer.
Stout, Nellie M.	Voice	Evart.
Thrasher, Effie E.	Voice	Albion.
Todd, Lola L.	Voice	San Francisco, Cal
Turner, Susie E.	Voice	Evart.
Wagner, Dora May	Voice	Litchfield.
Wells, Joseph J.	Voice	Athens.
Wetmore, Nora B.	Voice	Concord.
Watson, Myrtie A.	Violin	Cedar Springs.
Whitcomb, Jean M.	Voice	Marshall.
Whitcomb, Will H.	Voice	Marshall.
Wilder, Allen J.	Voice	Tekonsha.
Wiselogel, Ethel	Reed Organ–Violin	Pulaski.
Wisner, Edna	Voice	Mendon.

STUDENTS IN THE SCHOOL OF PAINTING.

Allen, Martha E.	Pontiac.
Allen, Mrs. Ida A.	Albion.
Andrews, Lulu	Albion.

Ball, Rosa	Albion.
Bissell, Flora A.	Richland.
Brown, Gertrude M.	Albion.
Bruce, Carrie M.	Albion.
Childs, Irene	Calumet.
Childs, L. Marion	Calumet.
Clark, Mabel Lee	Kalamazoo.
DeBow, Roscoe	Albion.
Dickie, Ada	Albion.
Edmonds, M. May	Bellevue.
Ford, Alta C.	Birmingham.
Goss, Etta	Otsego.
Galloway, Jennie	Dundee.
Hill, Mrs. Smith	Albion.
McHattie, Addie	Cedar Springs.
Millard, Hattie E.	Lapeer.
Michaels, Mrs. D. E.	Albion.
Monroe, Gail	Albion.
Newell, Geo. G.	Grand Rapids.
Niles, Irene	Flushing.
Parsons, Cora A.	Albion.
Peck, E. G.	Albion.
Rork, Emma L.	Agnew.
Rhead, Mae	Eaton Rapids.
Shank, Lois	Albion.
Sturgis, Lovina	Bluffton, Ind.
Sleight, Minnie E.	Bath.
Thorpe, Alma S.	Dillon, Mont.
Viney, Mrs. C.	Albion.
Wagner, Dora M.	Litchfield.
Winkler, Cora M.	East Saginaw.

DECORATIVE PAINTING.

Barr, Florence S.	Albion.
Bissell, Bertha	Albion.
Bradley, Sarah J.	Homer.
Burrall, Mrs. E. P.	Albion.
Garfield, Mary	Albion.
Gale, Mrs. Horatio	Albion.
Kesler, Mrs. W. S.	Albion.
Parmeter, Mrs. E. L.	Albion.
Skelding, Carrie	Detroit.
Sypher, Mrs.	Dallas, Texas.

Welch, Mrs. R. C.	Albion.
Wood, Mrs. C. B.	Albion.

STUDENTS IN COMMERCIAL DEPARTMENT.

The total number pursuing commercial studies during the year, not including shorthand, is ***seventy-four.*** The following are the full course students or students having commercial studies exclusively; the others largely doing literary work are catalogued accordingly.

COMMERCIAL STUDENTS.

Aiken, William E.	Albion.
Anson, Eva G.	Marshalltown, Ia.
Armstrong, Wortley F.	Kalamazoo.
Bolitho, Francis J.	Ishpeming.
Curtis, Chas. L.	Albion.
Carnes, Ernest	Shepardsville.
Dearing, James P.	Albion.
Eastman, Harry	Albion.
Gilbert, Myron B.	Albion.
Houck, Louise	Albion.
Hall, Agnes M.	Concord.
Hubbard, Fred J.	Albion.
Kellow, Charles	Ishpeming.
Kellogg, Fay K.	Albion.
Linderman, B. Arthur	Whitehall.
Loud, Jr., Reinze	Albion.
MeGee, Henry E.	Albion.
Ott, Nettie L.	Albion.
Proctor, Ernest R.	Wallace, Ill.
Quayle, John	Ishpeming.
Root, Hugh E.	Mason.
Roach, Frank H.	Sault Ste Marie.
Sayers, Geo. H.	Grand Rapids.
Selway, Ernest O.	Dillon, Mont.
Thorpe, Philip	Dillon, Mont.
Wood, Wm. B.	Albion.

STUDENTS IN SHORTHAND.

Boss, Hattie E.	Caro.
Clark, Mable Lee	Kalamazoo.
Marsh, Ernest	Albion.

Oldman, Alta E.	Albion.
Pray, Pearl B.	Dowagiac.
Robertson, Ima C.	Albion.
Smith, Dollie E.	Eaton Rapids.
Wright, Warren M.	Ishpeming.

SUMMARY OF STUDENTS.

COLLEGE OF LIBERAL ARTS.

Studying for Master's Degree	3	
Seniors	19	
Juniors	20	
Sophomores	36	
Freshmen	43	121

PREPARATORY SCHOOL.

Fourth Year	24	
Third Year	15	
Second Year	18	
First Year	26	
Unclassified	96	179
Oratory	67	
Deduct for previous count	52	15

CONSERVATORY OF MUSIC.

Whole number of classified students in the department	158	
Having literary studies with music	64	94

SCHOOL OF PAINTING.

Whole number	46	
Counted above	17	29

COMMERCIAL DEPARTMENT.

Whole number	82	
Counted before	52	30
		468
Unclassified students in music not included in previous lists,—in Orchestral and Vocal Music		28
Total number in the Institution		496

YEAR-BOOK

ALBION COLLEGE.

1890-91.

YEAR BOOK

—OF—

ALBION COLLEGE

—FOR—

1890-91.

ALBION, MICH.

PUBLISHED BY ALBION COLLEGE.
1891.

V. J. TEFFT, PRINTER, ALBION, MICH.

PART I.

ALBION COLLEGE CATALOGUE.

CALENDAR 1891-92.

1891.

COMMENCEMENT WEEK.

June 17—Commencement Reminiscence Meeting, 8 p. m.
June 18—Anniversary of College Society, 8 p. m.
June 19—Anniversary of College Society, 8 p. m.
June 19—Closing day of recitations and examinations.
June 21—Commencement Sunday.
June 22—Prize Orations, 8 p. m.
June 23—Alumni Day.
June 23—Meeting Board of Trustees, 2 p. m.
June 24—Conservatory Day—Commencement Concert 8 p.m.
June 25—Commencement Day. Year closes.

OPENING OF THE COLLEGE YEAR.

Sept. 23—Examination of candidates for admission; also special examinations, 9 a. m.
Sept. 24—Enrollment Day—Commencing 9 a. m.
Sept. 25—Recitations begin—Chapel 9 a. m.
Dec. 23—Term closes.

HOLIDAY VACATION.

1892.

Jan. 5— { Entrance and Special Examinations. / Enrollment Day.
Jan. 6—Recitations begin—Chapel 9 a. m.
Jan. 28—Day of Prayer for Colleges.
Mar. 25—Term closes.

SPRING VACATION.

April 5— { Entrance and Special Examinations. / Enrollment Day.
April 6—Recitations begin—Chapel 9 a. m.
June 23—Commencement Day, preceded by Exercises of Commencement week.

BOARD OF TRUSTEES.

L. R. FISKE, LL. D., President.

ELECTED BY THE DETROIT CONFERENCE.

		Term Expires.
Hon. H. M. Loud	Oscoda	1891
Otis A. Critchett, A. M.	Monroe	1891
Rev. J. S. Smart, D. D.	Flint	1892
George O. Robinson, A. M.	Detroit	1892
Horace Hitchcock	Detroit	1893
Rev. L. P. Davis, D. D.	Detroit	1893

ELECTED BY MICHIGAN CONFERENCE.

Hon. H. E. Staples	Whitehall	1891
Rev. W. H. Brockway, 1st V. Pres.	Albion	1891
Rev. John Graham, D. D.	Grand Rapids	1892
Willis W. Cooper	St. Joseph	1892
James W. Sheldon	Albion	1893
Rev. Wilbur I. Cogshall	Kalamazoo	1893

ELECTED BY THE SOCIETY OF ALUMNI.

Samuel Dickie, M. S., 2d V. Pres.	Albion	1891
Charles M. Ranger, A. B.	Battle Creek	1892
Rev. E. B. Bancroft, A. M., B. D.	Owosso	1893

ENDOWMENT FUND COMMITTEE.

Hon. Daniel Striker	Hastings	1892
S. P. Sidnam	Hastings	1895
Hon. Wm. H. Haze, M. D.	Lansing	1898

SECRETARY OF BOARD OF TRUSTEES.

Professor Delos Fall, M. S. Albion

BOARD OF VISITORS AND EXAMINERS.

APPOINTED BY SUPERINTENDENT OF PUBLIC INSTRUCTION.

Rev. D. M. Fisk, A. M.	Jackson.
Mr. J. W. Kennedy	Detroit.
Miss Lucy Chittenden	Ypsilanti.

APPOINTED BY DETROIT CONFERENCE.

Rev. C. L. Adams.....Holly.
Rev. J. C. Wortley.....Swartz Creek.

APPOINTED BY MICHIGAN CONFERENCE.

Rev. L. Grosenbaugh.....Lansing.
Rev. F. C. Lee.....Greenville.

STANDING COMMITTEES FOR 1890–91.

EXECUTIVE COMMITTEE.

L. R. Fiske, W. H. Brockway, Samuel Dickie, J. W. Sheldon.

AUDITING COMMITTEE.

L. R. Fiske, W. H. Brockway, Samuel Dickie, J. W. Sheldon.

FINANCE COMMITTEE.

Sam'l Dickie, Horace Hitchcock, H. M. Loud, G. O. Robinson.

COMMITTEE ON FACULTY.

John Graham, Willis W. Cooper, L. P. Davis.

COURSES OF STUDY.

L. R. Fiske, C. M. Ranger, Edward B. Bancroft.

RULES AND REGULATIONS.

L. R. Fiske, John Graham, H. E. Staples, Wilbur I. Cogshall.

LIBRARY AND APPARATUS.

James. S. Smart, Wilbur I. Cogshall, F. M. Taylor.

BUILDINGS AND GROUNDS.

L. R. Fiske, W. H. Brockway, J. W. Sheldon.

ASBURY CENTENARY ASSOCIATION.

OFFICERS.

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BOARD OF MANAGERS.

The Bishops of the Methodist Episcopal Church and tqə

Trustees of Albion College are, *ex-officio*, members of the Board of Managers.

MANAGERS ELECTED BY MICHIGAN CONFERENCE.

Rev. J. A. Sprague	Three Rivers	1891
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Prof. Samuel Johnson	Lansing	1893
Robert G. Chandler	Coldwater	1893
Rev. M. M. Callen	Jackson	1893
Rev. Wm. Denman	Grand Rapids	1893
Rev. G. L. Mount	Parma	1893

MANAGERS ELECTED BY DETROIT CONFERENCE.

Rev. J. E. Jacklin	Flint	1891
Albert Miller, Esq	Bay City	1891
Marshall H. Godfrey, Esq	Detroit	1891
Rev. L. P. Davis, A. M. D. D.	Detroit	1892
Rev. C. B. Spencer, A. M.	Owosso	1892
Frank R. Beal, Esq	Northville	1892
Horace Hitchcock, Esq	Detroit	1892
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Rev. John McEldowney, D. D.	Port Huron	1893
Rev. W. W. Washburn, D. D.	Saginaw	1893
Hon. John Owen	Detroit	1893
Hon. H. M. Loud	Oscoda	1893
T. C. Owen, Esq	Detroit	1893

BOARD OF INSTRUCTION.

LEWIS R. FISKE, PRESIDENT.

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ELLA HOAG BROCKWAY, PRECEPTRESS.

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Samuel O. Knapp Professorship of Geology and Mineralogy.

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Henry M. Loud Professorship of History.

CARL B. SCHEFFLER,
Piano, Harmony and Counterpoint.

SAMUEL D. BARR, A. M.
W. H. Brockway Professorship of Mathematics.

ROBERT S. AVANN, A. M., Ph. D.,
Latin Language and Literature.

FREDERICK LUTZ, A. M.,
Modern Languages.

E. JOSEPHINE CLARK, A. M.,
English Language and Latin.

CHARLES E. BARR, A. M.,
Ezra Bostwick Professorship of Astronomy.

REV. WASHINGTON GARDNER, A. M.,
Biblical History and Literature.

JENNIE A. WORTHINGTON,
Piano.

MAKK B. BEAL.,
Oratory.

ELLA HOAG BROCKWAY, Ph. M.,
English Literatnre and Musical History.

F. C. COURTER,
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MRS. H. W. MOSHER,
Decorative Painting.

MATTIE A. REYNOLDS,
Violin and Guitar.

ANNE MAY MORGAN,
Voice Culture.

MINNIE E. POWERS,
Piano.

JENNIE M. WHITCOMB,
Piano and Organ.

CORA TRAVIS,
Piano and Voice.

CHARLES L. McCLELLAN,
Principal of Commercial Department.

MAGGIE L. MILLER,
Shorthand and Typewriting.

JENNIE E. CAMPBELL,
Ass't Teacher of German.

SMITH BURNHAM,
Ass't Teacher of History.

FRED M. TAYLOR, A. M., Ph. D.,
Librarian.

REV. B. S. TAYLOR, M. D.,
Assistant Librarian.

ORGANIZATION AND GOVERNMENT

Albion College was chartered by an enactment of the Legislature of the State of Michigan in 1861. The school was first opened as a Seminary in 1843, in accordance with the provisions of a charter granted in 1835 and amended in 1839. The corner stone of the first bnilding was laid in June, 1841. In 1849 the charter was amended so as to create a Female College. In 1861 full college powers were granted by the Legislature, so that for thirty years it has been authorized to confer degrees without distinction of sex.

The general government of the institution is vested in a Board of Trustees, consisting of sixteen persons, six elected by the Detroit Conference of the Methodist Episcopal Church, six by the Michigan Conference, and three by the Society of Alumni. With the foregoing the President of the college is associated as a member *ex officio*. The State appoints annually a Board of Visitors and Examiners to inspect the workings of the college, which Board makes a Report to the Superintendent of Public Instruction Boards of Visitors are also appointed by both the Detroit and Michigan Conferences. A Centenary Board has been organized for consultation and advice, but without official authority—consisting of fourteen persons appointed by the Michigan Conference and a like number appointed by the Detroit Conference, who, un'ted with the Bishops of the church, are depended upon for many valua-

able suggestions for the most successful workings of the institution.

In the interim of meetings of the Board of Trustees a certain measure of power is vested in an Executive Committee consisting of the officers of the Board, who are also constituted an Auditing Committee.

The immediate government of the college is in the hands of the President and Faculty. The enrollment of the student carries with it obligations to perform the work assigned, and to live up to the spirit of the institution in study and deportment. The purposes of college life should be to secure scholarship, to broaden and culture the mind, and to build up noble character.

WORK AND APPLIANCES OF THE INSTITUTION.

STATEMENTS IN REGARD TO THE WORK OF THE YEAR.

The attendance of students is 15 per cent. larger than during any preceding year—the Freshman class exceeding in size any former Freshman class by 50 per cent. In all the departments of the school there has been substantial growth.

Very important additions have been made to the Museum, requiring the construction of three large cases. These consist of specimens in Mineralogy, in Paleontology, in Natural History, a beautiful collection of Indian relics largely dug from earth mounds, and articles from foreign countries illustrating the religions and customs of those lands. Aside from the above we should mention a valuable collection of foreign and ancient coins, and also relics of the war of the rebellion. Credit for these will be given in the proper place.

The Library has been enlarged by the purchase of $800 worth of books.

Two new typewriters have been put in the Commercial rooms.

The Art Studio has been supplied with a fine assortment of statuary.

Two new pianos have been purchased for the Conservatory of Music.

To promote an interest in the higher work of the college, and to afford scope for such work, a Science Association has been organized. This association is divided into three sections: Section of Natural and Physical Science, Section of Politics and Social Reform, Section of Language and Literature. The more advanced and earnest students are allowed to join this association, with members of the Faculty. The work done is university work in range and method.

Albion college has entered into special relations with the Methodist college at Tokyo, Japan. Their courses of study and methods of instruction are submitted to us, and we accept the work there done as preparatory to admission to our Senior class. We do not catalogue their students in our Year Book, only entering the names of those who come to us and pursue their studies here. There are now four Japanese young men in the college and others are expected to arrive the coming year.

For the first time during several years we have students of African descent. One is from Michigan and another from Mississippi. Both are bright young men. Mr. Hoffman, who comes to us from Mississippi, holds a Professorship in Alcoen college, which is a state colored school located at Rodney. There are with us one Swede, one Dane, one Bulgarian, one native of India, and three others from India.

An examination will show that all the Departments of the Institution have made decided growth—the College of Liberal Arts, the Conservatory of Music, the School of Painting, the higher classes of the Preparatory School, the Business College, and the Department of Oratory.

DEPARTMENTS OF THE INSTITUTION.

College of Liberal Arts.	Providing four courses of study, requiring the same time—four years—for completion. Conferring four first degrees, A. B., Ph., B. B. S., and B. L.
Conservatory of Music.	Providing a four years' Musical Course. A Diploma granted on graduation. Providing a six years' Course. Degree of B. Mus. conferred.
School of Painting.	Providing a four years' Painting Course, the student receiving a Diploma on graduation. Providing a six years' Course. Degree of B. P. conferred.
Preparatory School.	This school prepares for each of the four College Courses and covers a period of four years of instruction.
Academic Department.	This department is arranged for students who do not desire to prepare for college, or to classify in the College or Preparatory School.
Commercial Department.	This department is arranged on a plan to furnish considerable literary work with Commercial studies, so as to send out intelligent business men. The studies may be pursued by themselves, or in connection with literary branches.
Department of Oratory.	This department has recently been created, and a full course provided for such as desire to make oratory a specialty. Students in all the departments find it profitable to give some attention to this line of work.

STEPS PRELIMINARY TO ADMISSION INTO ALBION COLLEGE.

1. ***All candidates*** for admission into the Institution must first call at the President's Room, No. 3, Chapel Building. They must present satisfactory testimonials of good character. If they come from other institutions they must bring a certificate of honorable dismissal.

2. The second point to be settled is that of preparation to take up the prescribed courses of study, or the determination of the classification if advanced standing is sought. If the student comes from an ***approved*** school his certificates will be examined and his classification given him. If he does not enter on certificates he will be examined.

3. After the foregoing work is attended to the student is enrolled and his work assigned to him.

Enrollment Day.—The opening day of each term is Enrollment Day. As a special list of students is prepared for each term, all students must ***report for enrollment on the first day of the term.*** For new students this is the act by which they become members of the Institution. The tickets issued contain a list of the studies to be pursued, and also a statement of dues,—*which must be paid before the student is admitted to recitations.* All individuals intending to enter any of the departments of the College should report on the first day if possible. If this cannot be done, they will be received at a later date, if qualified to enter the classes. Persons who are already students are also *required* to take out their term tickets on Enrollment Day, so as to be able, on the following day, to prosecute their work with the regular classes. The closing of a term does not terminate the student's connection with the institution ; *and unless he graduates or is excused by the President he must be present on the first day of the succeeding term.* Absence on that day is as much a violation of the rules and order of the school as though it occurred in the middle of the term.

The Faculty are not at liberty to give instruction previous to the presentation of the Term Ticket receipted by the Secretary.

Students who are not in their places at the opening of the term must, if minors, *present a valid written excuse* from their parents or guardians; and if not minors, must give *satisfactory reasons* for such delay.

REQUIREMENTS FOR ADMISSION INTO THE PREPARATORY SCHOOL.

Candidates for admission into the Preparatory School must be at least thirteen years of age, and ***have a knowledge of the primary branches, including Descriptive Geography, Mental Arithmetic, Written Arithmetic through Fractions, and some knowledge of English Grammar.*** Starting with this preparation, those who are studious will be able to complete the course prescribed in four years, so as at that time to enter the Freshman Class. For ***advanced standing*** the age should be correspondingly greater, and examination must be passed on that part of the course for which credit is given, or on work equivalent thereto, unless certificates are brought for the same from accredited schools. The object of this school is to provide young people who desire to fit themselves for college with the most complete advantages for such preparation. It is not simply an academic department, but is conducted in the interest of those who intend to pursue studies required for admission into college. We call special attention to the order of the work here provided as in an eminent degree answering the purpose of the school.

REQUIREMENTS FOR ADMISSION INTO THE COLLEGE OF LIBERAL ARTS.

Candidates ***for Admission*** to the Freshman Class must be at least sixteen years old, must pass examination in the Primary English branches, and in all the studies of the Preparatory Course, or studies equivalent thereto as taught in the High Schools, unless admitted on diploma or certificates from other Schools under conditions elsewhere stated.

Candidates for ***advanced standing*** must, in addition to the foregoing, pass examination on advanced studies for which credit is sought, unless coming from other colleges whose work is accepted by us. Persons not candidates for a degree will be admitted to the regular classes, *but will be charged the matriculation fee, when their scholarship would entitle them to admission into the Freshman Class.*

ADMISSION FROM THE HIGH SCHOOLS.

1. Under conditions mentioned below, ***we shall accept without examination of students***, the work of the best High Schools of twelve grades as preparation for College. ***We shall accept the completed work of the English Course*** as sufficient to admit the student into the Freshman Class in our Letters Course, on graduation from which he will receive the degree of Bachelor of Letters. If the course he has pursued be ***more strictly Scientific***, he will, in the same way, be ***admitted into our Scientific Course,*** for which the degree on graduation is Bachelor of Science. If the course studied was largely made up of Latin, or Latin and Greek, he will, in like manner, ***be admitted into Col-***

lege in the Latin Scientific, or Classical Course, which will prepare him, in the former course, for the degree of Bachelor of Philosophy, and in the latter for Bachelor of Arts. Under the same conditions we shall admit into our ***Fourth Preparatory year*** from schools of eleven grades which are known to be doing satisfactory work.

If, however, the student in preparing for college has not pursued the study of Latin or Greek, or only to a limited extent, but desires to enter the Classical or Latin Scientific course, he can be thus classified without loss of time by taking up these studies in classes which are always organized in the Institution. This provision is made because we believe it to be best for every student to get as complete a knowledge of language as possible.

2. The regulations contained in the preceding paragraph apply to ***all schools which***

(a) Have been ***visited by the Faculty of the University of Michigan*** and approved by them; or

(b) Have been ***visited by us and approved;*** or

(c) Have, by some other ***satisfactory method, supplied us with the evidence*** that, in extent, quality and completeness of work, the pupil has gained the scholarship and culture required to enter our classes. ***If the school has received formal approval according to*** (a) ***or*** (b) ***of this paragraph, we shall admit students directly on their diplomas and certificates.*** But if the school is not included in one of these classes, and it is desired to enter into relations with Albion College, the course or courses of study must be transmitted to us with such statements in regard to the work done as are considered important. This will be preliminary to an adjustment of relations. We will, at an early day, give information as to our judgment of the curriculum followed in such school.

3. To be ***admitted into the College without examination,*** the student, if coming from a school included in one of the classes of 2, (a) or (b), will ***present his diploma or certificate,*** together with ***a letter from the Superintendent or Principal of the School informing us that his work has been thoroughly done, that his habits are studious, and that he possesses capacity for genuine scholarship.*** On the strength of this he will be ***immediately classified.*** If he comes from a school embraced in class 2 (c) he must ***present his diploma or school certificate, with a letter from the Superintendent or Principal*** of the school certifying to the earnestness and success of his work. He will then be ***classified provisionally*** according to the tenor of these documents, which classification will be ***made permanent after a few weeks' successful study in the institution.***

4. *On account of the exceptional length and fullness of some of the High School courses, the graduate finds that he has covered more subjects than are required for entrance into the best colleges. Such a graduate will be able to get advanced credit for some of the extra subjects thus taken, and to shorten his course in college by a third or even a half year. For this advanced credit High School certificates will be accepted save in the case of those subjects suited only to a later stage in one's culture, such as Philosophy, Political Economy, Political Science, etc. The exact amount of credit to be given will in every case be determined by the head of the department interested.*

REASONS FOR THE FOREGOING.

The ***Public Schools are the most valuable provision*** for the education of the mass of the people found anywhere in this country. They reach the largest number of persons, supply the foundation of our civilization, and create conditions essential to the existence of free government. But ***colleges*** are doing a work of great importance. In some respects it must be quite

unlike the work of even our best High Schools. It should be of a different grade, not only because the branches of study are of a higher order, but because of the greater maturity of mind of the pupil, the collection of more abundant means of illustration and research, and of the special methods it is possible to employ, contributing to more independent and thorough scholarship. The recitation, simply as a recitation, becomes a less important factor, gradually giving place, more and more, to self-reliant personal research in the determination of truth, under the guidance, or with the advice, of men who labor in special lines of investigation.

For some years the conviction has been growing, that ***colleges should offer special advantages,*** not only to young persons who expect to enter upon a professional career, ***but to all who have high aims in life.*** The fact has come to be appreciated that, for the development of intelligent manhood, for the best discharge of the duties of citizenship, for meeting the demands of the highest forms of the arts, and for keeping pace with the advancing civilization of the age, the large class of persons who will carry forward the business and industries of the world would derive incalculable benefit from liberal culture.

But how can ambitious young men and women, who have formed high ideals of excellence, ***prepare for college?*** This preparation must, in most cases, be obtained in the High Schools, if gained at all. And while these schools, perhaps, may retain their pupils under instruction a sufficient length of time to prepare them for college, provided the course of study has been adapted thereto, there are insuperable barriers in the way. We recognize the fact that the ***High School exists to meet local wants***, and does its work best when it most fully meets such wants. ***It has been held*** that, for the pupil to fit himself for college, it is necessary to engage in special lines of work such as are not found in most of our high schools, and which could not well be provided without sacrificing local interests, But for the last three or four years the Faculty of Albion Col-

lege have been studying this question in the light of all the information they could obtain, with a careful scrutiny of the principles involved, and have reached the conclusion that ***the courses of study best adapted to the purposes of the High School, may, and ought to be, accepted in preparation for college.*** We shall therefore try the experiment, which we believe will be successful, of taking the student at the point up to which the best schools have educated him, ***giving him credit for all his work.*** This will practically throw college doors open to a large number of young persons, who on the old system would be deprived of the advantages provided in the higher institutions of learning. By this plan we shall ***not admit at any lower point of scholarship,*** but shall make the lines of study in preparation more flexible, holding that it is training and culture that are needed, which can be secured through superiority and adequate range of work, rather than by adherence to the old method of following always a special line of studies. We are convinced that a large number of schools of twelve grades—in the quality and extent of work done—may be trusted to prepare for the Freshman year in college; and that many of the schools of eleven grades may be relied upon to fit the pupil for the Fourth or highest Preparatory year.

KIND AND RELATION OF COLLEGE WORK.

The curriculum of college studies of half a century ago has undergone, in many institutions, very extensive modifications; and those schools that adhere rigidly to the past are suffering in comparison with the class referred to. The ancient regime restricted the lines of study almost wholly to Latin, Greek and Mathematics, with something of Mental and Moral Philosophy. In the truly modern college a good deal of attention is given to the modern languages, to the sciences, to history, and to studies which are purely English. It may be remarked

that there is much unreasonable prejudice against the ***study of the languages.*** While they should not monopolize the attention of the student to the exclusion of everything else, they rightfully may claim considerable of his time if the fullest culture is sought. No other studies are more practical. In every department of life we are constantly employing language. Not only is this true of the clergyman, the lawyer, the statesman and the journalist, but it is true of every private citizen who has the least to do with public affairs. The clerk in the store, even, employs language more than he does arithmetic. Language is the repository and vehicle of thought. As listeners, as well as speakers, the significance of words and the content of sentences employed depend on the depth and comprehensiveness of our knowledge of language. Indeed, we think through language, and the reach of thought is limited by the scope of the language as understood by us. As man is a being who uses language more than anything else—employing it in business, in social life, in intellectual pursuits, in his relation with others, and in the subjective development of mental power—the more profoundly it is studied and the more meaning we are able to put into it, the grander and more practical will life become. In the foregoing considerations nothing has been said of the special forms of mental culture promoted by the study of language. The benefit thus obtained is justly regarded as exceedingly valuable, and it is generally conceded that it cannot, in every respect, be gained from any other line of study.

The ***partiality for mathematics*** grows out of two forms of service rendered by it; one of these, as the instrument of business and for the development of science; the other as helping to generate a habit of accuracy of thought and power of attention. Mathematics, therefore, will always be given a large place in the college curriculum.

The ***growing interest in science*** has compelled colleges to give it a larger place in the four years of study than it formerly oc-

cupied. In some institutions the traditional aristocracy and exclusiveness of the past have not been sufficiently dissipated to allow the study of nature its proper share of time. It should be borne in mind that he who reads intelligently the book of nature is not only in communion with truth under conditions very favorable to the inspiration of thought, but a habit of close observation is acquired which is exceedingly fruitful of scholarly attainments. One of the most important acquisitions is the spirit of intelligent-searching after truth.

It is only within a few years that the ***study of history*** has occupied to any extent the attention of our American colleges. That the lessons we may learn from history are of great value to us is indisputable. And unless colleges choose to incur the odium of deliberately rejecting that which is universally recognized as highly important, history studies should have a leading place in these institutions of learning.

Our ***mother tongue*** has usually received but little attention in the colleges of this country. The ancient languages were universally conceded to be of vital importance, while the English was pushed aside, only as it came into notice through the Latin and Greek. It is time that the folly of this was clearly perceived, and a radical revolution effected. While all languages should be considered a unit, and should be studied in their relations one to the other, the English speaking student should have his eye always on the English, and make all other linguistic lines converge toward his mother tongue.

There is another broad field for colleges to occupy in which they come closer to the daily life, and hear the heart-throbbings of the public. We speak of the ***problems of Political Science, Social Science and Social Reforms.*** These problems should receive special attention if the college would do for the public all the work which may reasonably be demanded of it. And problems of this nature should be pursued not simply by the perusal of a text book, or by listening to formal lectures, but by exhaustive research, the studying of the questions involved

from all sides. Thus will the knowledge gained be more exhaustive, the opinions formed more independent, while the most successful method of looking up the data for intelligent judgment on practical questions will be learned. In nearly every line of study the college ought to put the pupil in the way of going outside the teachings of the text book, and making broad and extensive researches.

It is evident that any college fails to achieve the best and most reliable results unless it finds ***God at the foundation of all truth***, unless it carries the student into the sphere of ultimate divine causation, as a reason for, and explanation of all science and conditioned being. Intellectually the work is incomplete, the scholarship rests on the sand, unless God is the support of the great temple of truth that is reared. The race can never be strong without a God, and colleges which do not aim to bring the Unconditioned Absolute Will into the problem of nature tolerate weakness instead of generating strength.

There are several facts to which we call attention.

We have arranged four distinct and radically unlike courses of study: the Classical, the Latin Scientific, the Scientific and the Letters Course. ***In the Classical,*** the Latin and the Greek hold a prominent place. In all colleges, both in Europe and America, until quite recently, there was no other course. And at present, many scholars maintain that more culture is gained from this line of work than from any substitute that has been offered.

In the Latin Scientific the Greek is replaced by other studies, but *requiring the same amount of time for their mastery.* These studies are principally—though not wholly—in science and mathematics. *But students who desire to make a specialty of Latin or some of the modern languages, can substitute further work in these languages for such branches in science or mathematics as have been introduced into this course in place of the Greek found in the Classical Course.* This will make the

course pre-eminently linguistic, the same as the classical course. Greek may be taken in the place of Latin and the course will then be Greek Scientific. In either case the degree conferred will be Bachelor of Philosophy.

In the scientific course there is no ancient language in the college curriculum, and *but one year of required Latin in the Preparatory, with also another year of either Latin or Greek.* But the amount of Mathematics, Science and History, is much increased.

The college has established ***a Letters Course*** in which no Latin or Greek is required, but special attention is given to the study of the English Language, including the Anglo-Saxon.

The English Course of the High Schools will, in the direction of studies pursued, ordinarily afford a proper preparation for this line of work. Provision is made for the introduction of a *certain amount of study in Music, Fine Arts, Oratory or Commercial Branches* in case the student desires to elect the same. The exact character of this course will be explained later on in the Year Book.

The degree the student will receive on graduation is determined by the course he has pursued up to the Junior Year, *except in the course that prepares for the degree of B. L.*

In the Classical, Latin Scientific, and Scientific courses the Junior and Senior Years are devoted wholly to elective work, except Psychology, Logic and one term of Chemistry, which are required of all students who are candidates for a degree. Several studies in the Sophomore year have recently been made elective.

The courses of study will be found tabulated elsewhere in this volume; also a somewhat full exhibit of the work pursued. It will be seen by a study of the order and scope of the courses adopted, that the college is keenly alive to the importance of that which is new and valuable in the modern life of institutions of learning. It has done much to create a progressive

spirit, and effect a reformation in the order and purpose of college work.

DEGREES.

At the completion of the under-graduate courses of study the first or Bachelor's degree is conferred as follows:

The degree of Bachelor of Arts, (A. B.) is conferred on all who complete the Classical Course.

The degree of Bachelor of Philosophy, (Ph. B.) is conferred on all who complete the Latin Scientific Course.

The degree of Bachelor of Science, (B. S.) is conferred on all who complete the Scientific Course.

The degree of Bachelor of Letters, (B. L.) is conferred on all who complete the Letters Course.

None of the above degrees will be conferred except upon satisfactory examination, and payment of the regular fee of five dollars; and the *name of no student will be presented by the Faculty to the Board of Trustees for a degree till he has submitted to the Faculty the receipt of the Secretary for the payment of all dues, including the fee for diploma.*

No one will be admitted as a candidate for any of the above degrees later than the first term of the Senior year.

The degree of A. M., Ph. M., or M. S., unlike that of LL. D. or D. D., is, in theory, not honorary, but a voucher for the recipient's actual and ascertained progress in some special line of post-graduate work; while in practice these degrees have been almost universally conferred by American colleges without any reference to the preparation or fitness of the candidate. During the last ten or twelve years, however, there has been a general movement toward the correction of this evil; in harmony with which movement, the Board, in 1879, passed a series of resolutions which furnish the bases of the following regulations:

1. Graduates of ***any year previous to 1880,*** of three or more years' standing, who have been engaged for three years in literary or scientific pursuits, will be recommended for the Master's

degree, upon written application and the payment of the regular fee of five dollars.

2. Any person graduating ***subsequently to the year 1879***, may obtain the Master's degree by either of two methods, viz:

(1). ***One Year of exclusive study in Albion,*** or

(2). ***A three years' course of reading pursued in connection with other occupations.***

3. ***A candidate electing either of these three methods will be required,*** (1) ***at the beginning of his course*** to elect, with the advice and approval of the Faculty, one principal and two subordinate lines of study; (2) ***at least one month*** before recommendation for the degree, to pass a satisfactory examination upon such work in each of the three lines as may be specified by the Faculty; and (3) ***at least two months*** before recommendation for the degree to present a thesis upon some topic approved by the Faculty in his principal line of work.

4. In the case of one-year candidates, ***residence in any college town*** or other place furnishing facilities for special study, such as libraries, museums, etc., will be accepted in lieu of actual residence in Albion; provided always, that all other conditions herein stated are rigidly complied with.

5. ***In no case*** will the candidate be recommended for the degree before he shall have paid in the regular fee of five dollars.*

The plan followed by the student will embrace ***one principal line of study,*** and ***two subordinate lines.*** This work can be done in any of the departments represented in college courses, or ordinary post-graduate lines of study, embracing also the leading questions of the day.

A statement of the condition on which the degrees of Bachelor of Music and Bachelor of Painting are conferred will be found in connection with the courses of study in the Conservatory of Music and School of Painting.

*NOTE.—Any person desiring to become a candidate for either of these degrees will at once communicate with the Secretary of the Faculty, stating the line he would prefer to work in, his present occupation, his facilities in the matter of libraries, etc., etc., when the Faculty will determine, as nearly as possible in accordance with the applicant's inclinations, the studies to be pursued, prescribe the books to be used, etc., etc. As the work will be entirely elective, no specific course can be laid down; but in general it may be said that the candidate will be expected to work in the subordinate lines as a general student; in the principal line as a specialist.

TABULATED COURSES OF STUDY IN THE COLLEGE OF LIBERAL ARTS.

FRESHMAN YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
Latin.....4	Latin.....4	Algebra.....5	*French.....3
Greek.....5	Algebra.....5	French.....4	
French.....4	French.....4	German.....3	
German.....3	German.....3	Elective.....3	Elective.....12
Latin.....4	Latin.....4	Microscopy.....3	*French.....4
Greek.....4	American Literature.....3	American Literature.....3	Astronomy.....3
French.....4	French.....4	French.....4	American Literature.....3
Astronomy.....3	Astronomy.....3	Astronomy.....3	
		Elective.....2	Elective.....5
Latin.....5	Latin.....5	Advanced Botany.3	*French.....3
Greek.....5	Inv. Geometry...4	Inv. Geometry...4	Astronomy.....3
French.....3	French.....3	French.....3	
Astronomy.....3	Astronomy.....3	Astronomy.....3	
		Elective.....2	Elective.....9

SOPHOMORE YEAR.

Latin.....4	Latin.....4	Biology.....3	
Greek.....5	European Hist'ry 3	European History.3	
Trigonometry.....5	Trigonometry.....5	Trigonometry.....5	
German.....2	German.....2	German.....2	
		Elective.....2	Elective.....15
Latin.....4	Latin.....4	Physics.....3	European History.3
Greek.....5	Gener'l Geometry 5	General Geometry.5	
European History.3	European Hist'ry 3	European History.3	
French.....3	French.....3	French.....3	Elective.....12
Latin.....3	Latin.....3	Physics.....3	European History.3
Greek.....4	Calculus.....5	Calculus.....5	
European History.3	European History or Physics.....3	European History.3	
German.....2	German.....2	German.....2	
Elective.....3	Elective.....2	Elective.....2	Elective.....12

*** It has been decided to make the Letters Course more flexible than heretofore in order to provide a course in which the student may more perfectly adapt the work to his peculiar taste and temperament. The required work in English, Mathematics, Science, and History consists of the studies in the table which are not starred. In addition the candidate for this degree must take the courses in General Psychology and General Chemistry; also three years of Language, of which at least one year must be French or German. Of the Electives about seventy hours must be taken from the Literary Department. The ninety hours remaining may all be elected from the Literary Department, or in part from the Commercial Department with maximum limit of forty hours, or from the Art Department with a maximum limit of forty-five hours, or from the Conservatory of Music with a maximum limit of sixty hours, or from Elocution with a maximum limit of eighteen hours, or from any combination of the above.**

JUNIOR AND SENIOR YEARS.

This table contains, in addition, all the Elective studies of the preceding years, except those mentioned in the foot-note of the Letters Course on page 29. Not all the courses laid down in this table are usually given each year. Whatever shall be taught is determined principally by the demand, though other circumstances enter into the case.

PHILOSOPHY.	THEOLOGY.	LATIN.	GREEK.	NAT'L SCIENCE.
Psychology...5 History of Philosophy 3 Pedagogy.... .2	Old Testament History.....3 Res. Compar. Religions ...2	Cicero— De Senectute } 2 De Amicitia } Horace—Odes 2 Composition ..1 Cicero— Tusculan Disputations 3 Lucretius..... 2	Epic Poetry ..3 Drama 3 Literature 1 Greek Testament. 2 Hebrew.....2	General Chemistry.....5 General Biology.... 3 Sanitary Science.....3 Geology 5 Meteorology...3 Organic Chem.5
Psychology...3 History of Philosophy 5 Theism.....5	New Testament History 3 Homiletics....2 Res. Compar. Religions....2	Latin Lit.....2 Horace–Satires and Epistles.2 Composition..1 Plautus..... ..3 Pliny—Epistles..... } 2 Cicero–Epistles..... }	Epic Poetry..3 Drama..... ..2 Literature.... 3 Greek Testament.....2 Hebrew 2	Qualitative Chemistry...5 Microscopy ...3 Quantitative Chemistry ...3
Moral Science.5 Logic 4	Church Hist..4 Evidences of Christianity. 4 Res. Compar Religions....2	Livy..... ..3 Terence 2 Tacitus 2 Seneca.... 2 Christian Hymns 1	Lyric Poetry..2 Plato..... ..4 Literature ... 2 Greek Testament 2 Hebrew 2	Mineralogy ...3 Qualitative Chemistry ...3 Vegetable Biology 2

JUNIOR AND SENIOR YEARS—CONTINUED.

HISTORY, POLITICS AND ECONOMICS.	ENGLISH.	MATHEMATICS PURE AND APPLIED.	MODERN LANGUAGES.
European History, 1500–1648.....3 European History, 1648–1740... 2 History of Civilization 3 Political Philosophy 2 Political Economy 4	Anglo-Saxon.....3 History of English Literature 3 Science of Rhetoric 4 English Lit.—Study of Masterpieces.3	Calculus 3 Astronomy.....3 Quaternions 3	French III and VI as described in the outline of work. German IV and VI as described in the outline of work. Italian. Spanish.
Political His. U. S. 3 European History, 1740–1815..... 3 Political Science..3 Research 2	Early English....3 Anglo-Saxon.....3 History of English Literature 3 Trench on Words.2 American Literature—Study of Masterpieces....3	Calculus 3 Physics 3 Astronomy.....3	French IV and VI as described in the outline of work. German IV, V and VI as described in the outline of work. Italian. Spanish.
European History, 1815—.....3 Practical Politics.3 Finance.....3 International Law 4 Research 2	Early English....3 Anglo-Saxon.....3 Trench on Words.3 English Literature —Study of Masterpieces 2 Shakespeare.....2	Physics 3 Modern H. Algebra including Determinants.....2 Astronomy.....3 Surveying.....3	French V and VII as described in the outline of work. German IV and V as described in the outline of work. Italian Spanish.

NOTES ON THE FOREGOING COURSES.

The courses of study are put in tabulated form so that the student may see, at a glance, the time of the year in which instruction will be given in each branch, and the amount of time devoted to the same. The order prescribed is not followed with absolute precision, but may be varied to some extent, from time to time, at the discretion of the Faculty. If not followed literally an equivalent will be substituted.

Some very important changes have recently been made in the curriculum of studies. The system of college work is made to conform to the ***most advanced views*** of leading teachers, and is brought into harmony with the natural and necessary order of mental growth—both individual development and race civilization. A few words only are needed in this place.

By the time the student reaches the ***beginning of the Junior year*** he is regadred as prepared for ***more independent work*** than he could generally carry forward in the earlier part of his course. Henceforth his individual preferences are more largely consulted. It will be seen that lines of study and investigation are provided from which he may select the branches to be pursued. We invite attention to the following points:

1. ***A few studies*** are elective previous to the Junior year.

2. ***All studies in the Junior and Senior years*** are elective with the exception of Psychology, Logic and one term of Chemistry.

3. Students in these years must ***select from at least two lines.***

4. It is recommended that they select from ***three lines***—they must ***not select from more than five lines.*** These selections will be made under the advice of the Faculty, so that consistency of work may be secured.

5. It is the judgment of the Faculty that the best results are gained when the student has done very thorough work in all the studies previous to the Junior Year—not slighting any—but does ***not attempt to take up all the lines*** of elective work in the last two years of his course. There is benefit from specialization, and by the time the student reaches the Junior Year ***the attention should be concentrated on a comparatively small number of subjects.*** But in order to do special and research work profitably it is necessary that thorough discipline of mind shall have been gained.

6. The student will be required to have ***fifteen hours of recitation*** each week, or what is equivalent thereto.

7. A large amount of ***research work*** will be prosecuted during the Junior and Senior years.

8. *The Degree conferred at graduation will be determined by the course pursued up to the close of the Sophomore year*, in all courses ***except the Letters.*** If previous to that time the student has taken the studies of the Classscal Course, his degree will be "Bachelor of Arts;" if Latin Scientific, it will be "Bachelor of Philosophy;" if Scientific, it will be "Bachelor of Science." The Junior and Senior studies are largely of a ***university character***, preparing the student for independent investigation when from graduation he must carry forward his studies without the presence and guidance of a living teacher. The lines of study provided have been made so broad and varied that the ***candidate for any of the professions***, as well as the business man, can obtain here the scholarship which will best fit him for his chosen and anticipated mode of life.

It will be seen that the order in which some of the branches of study are pursued is not quite the same as that adopted in many institutions, but no confusion grows out of this arrangement, as all the studies are taught in contiguous years. ***Those who have pursued Latin and Greek before any of the modern languages find no inconvenience in taking up these modren languages at any point in their course.*** Whatever may have been the order of study in the High Schools, the classification will depend on the ***amount and value of the work done,*** not on the fact of ***pursuing the precise branches laid down in our Preparatory School.***

TABULATED COURSES IN THE PREPARATORY SCHOOL.

FIRST YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
Arithmetic 5 Civil Government.5 English Grammar5	Arithmetic.....5 Civil Government 5 EnglishGrammar 5	Arithmetic.....5 Civil Government.5 English Grammar5	Arithmetic.. 5 Civil Government.5 English Grammar5
Arithmetic..... 5 Physical and Historical Geography.5 English Grammar5	Arithmetic.....5 Physical and Hist. Geography.....5 English Grammar5	Arithmetic.....5 Physical and Hist. Geography.....5 English Grammar5	Arithmetic.....5 Physical and Hist. Geography.....5 English Grammar5
Arithmetic.....5 English Analysis and Composition..5 English History..5	Arithmetic 5 English Analysis and Composition 5 English History..5	Arithmetic.....5 English Analysis and Composition..5 English History..5	Arithmetic..... 5 English Analysis. and Composition..5 English History..5

SECOND YEAR.

German... 5 Algebra 5 Rhetoric.... 5	German.....5 Algebra.....5 Rhetoric 5	German 5 Algebra.....5 Rhetoric 5	* German..... 5 Algebra 5 Rhetoric 5
German 5 Algebra 5 Physics 5	German. 5 Algebra 5 Physics 5	German. 5 Algebra..... ..5 Physics.... 5	* German 5 Algebra.. 5 Physics 5
German.....5 Algebra.. 5 Physics 5	German.....5 Algebra.... 5 Physics..... ..5	German. 5 Algebra.....5 Physics.....5	* German.....5 Algebra.... 5 Physics 5

THIRD YEAR.

Latin. 5 Modern History..5 Algebra. 5	Latin.....5 Modern History..5 Algebra.....5	Latin..... ..5 Modern History..5 Algebra.....5	* Latin.....5 Modern History..5 Algebra.....5
Latin... 5 German..... 3 Geometry 4 Medieval History.4	Latin... 5 German.....3 Geometry 4 Medieval History4	Latin.....5 German 3 Geometry 4 Medieval History.4	* Latin.... 5 * German..... ..3 Geometry 4 Medieval History.4
Latin. 5 Botany..... 5 Geometry 5	Latin.....5 Botany..... 5 Geometry.. 5	Latin..... 5 Botany..... 5 Geometry 5	* Latin.....5 Botany..... ..5 Geometry 5

FOURTH YEAR.

Latin.....4 Greek.....5 Roman History...3 German. 3	Latin.....4 English Literatur4 Roman History. 3 German.. 3	Latin..... 4 EnglishLiterature4 Roman History..3 German.....3	EnglishLit.....4 Roman History ..3 Elective.... 8
Latin.....4 Greek. 5 Geometry 4 Physiology.....5	Latin 4 Mechanical D'w'g4 Geometry.....4 Physiology.....5	Latin..... 4 Mechanical D'w'g4 Geometry.....4 Physiology.....5	MechanicalD'w'g4 Geometry. 4 Physiology.....5 Elective.....2
Latin.....4 Greek.. 5 Zoology 4 Ancient History...3	Latin. 4 German..... 3 Zoology 4 Ancient History..3	Latin-... 4 German.....3 Zoology.....4 Ancient History..3	Zoology.....4 Ancient History..3 Elective.....8

ANALYSIS OF THE FOREGOING COURSES OF STUDY.

An examination of the courses of study which make up the work of the Preparatory School will enable the reader to determine the following points:

1. ***The extent of study*** to prepare for college is the same in all the courses. The degree to be gained is not thus lowered by being granted after a short course in any line of work, as in some institutions of learning.

2. ***The first year is given purely to English studies.*** It is believed this will be for the best interest of students who as yet have reached no higher grade of scholarship. The gaining, in connection with other branches, a thorough knowledge of English Grammar will lay a good foundation for the study of the languages which immediately follows.

3. ***We begin linguistic studies with the German.*** Former Year Books contain in full reasons for taking up modern before ancient languages, and it is probably not necessary to repeat them here. It is enough to say that the student finds fewer difficulties in mastering a modern language than an ancient language, and hence as the more simple it should precede the more complex. Also modern languages open access to the valuable living literature of the learned nations of Europe, and it is important that the student possess the key to this storehouse of learning early in his course.

4. ***The study of the French*** has been postponed till the Freshman Year, because the graduates of High Schools, generally, have not had an opportunity of pursuing this branch in making their preparation for College. We should give it an earlier place, were it not that we desire to accommodate the pupils who come to us from schools in this and other States.

5. ***Placing German in the order of study before Latin*** allows us only two years for the latter study in the Preparatory School. This does not reduce the amount of Latin provided, but transfers it, to some extent, to the college years. In the Classical and Latin Scientific courses, Latin is required through the Freshman and Sophomore Years, and is made elective through the Junior and Senior Years, so that there is provision for Latin through the entire four college years. A corresponding change is made with the Greek.

6. The fact that in some cases ***the order of work*** in our Preparatory School is not the same as in many of the High Schools does not introduce any disorder into our movements, ***because back work can be taken up with classes in the Institution pursuing such branches, and credit secured for advanced work.***

7. ***Classification of students*** coming from High Schools, or Academies, will not depend on the fact of having pursued just the branches laid down in our preparatory courses, but ***credit will be given for equivalents*** so far as they harmonize with the lines of movement.

8. ***The Letters Course*** is provided for young people who desire to devote as much time to study as is necessary to complete any of the ordinary College courses, but being specially interested in the science of music, other lines of the Fine Arts, etc., would like to gain the form of culture to be acquired in such studies. A limited election of these branches is therefore allowed for the degree of Bachelor of Letters.

ACADEMIC DEPARTMENT.

This department is provided for students ***who do not wish to classify*** in the Preparatory School or College.

It accommodates two classes of persons:

(1) Those who do not propose to pursue an extended course, intending to spend only a short time in the Institution.

(2) Students who desire to make a specialty of certain lines of work, such as Mathematics, or Science, or History, etc.

There are the same requirements for admission as to age and scholarship as in the Preparatory School. ***Any of the classes of the Institution*** are open to academic students without reference to the tabulated order, in view of the fact that they are not candidates for a degree, provided the scholarship already gained will enable them to carry forward the work successfully. No tuition is charged, but in addition to the regular incidental fee the ***matriculation fee of five dollars*** must be paid if College studies are pursued. We consider it best for the student to take up the work in the order of our tabulated courses, and ***all the work thus provided,*** but as circumstances sometimes exist to prevent this we make provision, as above stated, for limited lines of study.

BRIEF OUTLINE OF WORK PROVIDED FOR IN THE TABULATED COURSES OF STUDY.

MODERN LANGUAGES.

FRENCH.

I. The principal aim of this course will be the acquisition of a knowledge of the essentials of French grammar, and of an

ability to translate at sight ordinary French prose. Books to be used: Bôcher's Reader; Erckmann-Chatrian *Le Concrit de 1813;* George Sand, *Francois le Champi*, or their equivalents—Three Terms. The grammar will be taught by talks. Required.

II. The object of this course is to learn to read French without translating it into English. The work in class will be carried on in French as much as possible. Books to be used: Augier et Sandeau, *Le Gendre de M. Poirier;* Alexander Dumas, *Le Capitaine Pamphile;* George Sand, *La Petite Fadette.* Winter Term, 3 hours. Required.

III. In this course students will read Molière's *Le Misanthrope* and *Le Tartuffe* in class, and they will be required also to bring into class written resumes of other plays of Molière. Fall Term, 2 hours.

IV. Racine's *Athalie* and *Bérénice* will be read and commented upon in class, and a few plays will be read as home-reading. Spring Term, 2 hours.

V. Some of Corneille's plays will be read and explained in French. A few of La Fontaine's fables will be committed to memory. During the term attention will be given to the historical part of French grammar. Spring Term, 2 hours.

VI. This course will partake of the nature of a Seminary. Only one author will be studied, probably Victor Hugo. Each member of the class will study one book of the author and report at stated times. All the members must be familiar with all the books assigned. Fall Term, 2 hours.

VII. The spring term will be devoted to studying historical French grammar, based on *Brachet's Grammaire Historique de la langue francaise.* In addition to Brachet, Brunot and Clédat will be used. Spring Term, 2 hours.

VIII. Translation from French into German.

GERMAN.

I. The elementary course will aim at reading ordinary German prose at sight, and at getting a knowledge of the essential

part of German grammar. Books to be used: Zschokke's *Neujahrsnacht;* Eichendorff's *Taugenichts;* Fouqüe's *Undine;* Some of P. Heyse's shorter stories. Through the year, 5 hours required.

II. Historical works will be read, such as are to be found in the Neue Plutarch; Freytag's *Bilder aus Neuer Zeit.* In addition derivation of words will be studied. Lutz's Derivatives. Winter Term, 3 hours. Required.

III. Selections from the works of *Goethe, Schiller, Lessing,* etc., will be read and discussed without translating the lessons. Fall Term, 3 hours. Required.

IV. Literature of the 18th century. Spring Term. Required.

V. A course in German will be given similar to the one described in French VI. Schiller will be the author. Winter term, 2 hours required.

VI. Middle high German will be taken up in this course. The grammar will be taught by talks. The class will translate into modern German Hartman von der Aue's *Der arme Heinrich; das Nibelungenlied,* etc. Fall Term, 2 hours.

VII. Old High German.

VIII. Gothic. Fall Term 2 hours.

ITALIAN.

I. Toscani's Grammar. Composition. I Promessi Sposi.

II. Grammar. Selections from Ariosto, Boccacio, Petrarca and Dante.

SPANISH.

I. Jose's Grammar. Composition. El Eco de Madrid, Gil Blas.

II. Grammar. Selections from Calderon, Lope de Vega, Cervantes.

ANGLO-SAXON AND EARLY ENGLISH.

I. Elementary Course. Sweet's Anglo-Saxon Primer, First Middle English Primer.

II. Advanced Course. The Anglo-Saxon Chronicle (Skeat's edition), Caedmon's Exodus (Hunt's edition).

The French and German courses not marked "Required" can only be taken by students who have been studying French and German for at least two years.

ANCIENT LANGUAGES.

LATIN.

Latin is pronounced according to the Roman method.

Required.

I.

The work of the first year aims to secure for the student a considerable vocabulary, an accurate knowledge of the common forms of the language, an intelligent understanding of the general principles of syntax, and the ability to translate easy Latin at sight, and that which is more difficult with the aid of legitimate helps.

The text books in this year are Inductive Latin Method by Harper and Burgess, Harkness' Standard Latin Grammar, Collar's Gradatim, Riggs' In Latinum, and Kelsey's Caesar.

II.

In the second year the study of Caesar, the grammar, easy sight reading, and of composition is continued the first and second terms, completing the first four books of Caesar, the second invasion of Britain from the fifth book and the second invasion of Germany, etc., from the sixth book.

In the third term Sallust's Caitline is read. Herberman's edition of the Catiline is the one used at present.

III. FRESHMAN YEAR.

Cicero (Harkness) [three orations] and Composition (Daniell)—first term—four hours.

Cicero (Harkness) [three orations] and Composition (Daniell)—second term—four hours.

Ovid (Kelsey) [about 1,500 lines mostly from the Metamorphoses—third term—five hours.

IV. SOPHOMORE YEAR.

Vergil (Greenough) [Æneid, Books I and II]—first term—four hours.

Vergil (Greenough) [Æneid, Books III, IV and V]—second term—four hours.

Vergil (Greenough) [Æneid, Book VI], Cicero (Kelsey) [De Senectute]—third term—three hours.

Elective.

1. Horace (Odes)—first term—two hours.
2. Cicero (Tusculan Disputations, Book I)—first term—two hours.
3. Livy (Book I)—second term—two hours.
4. Latin Literature (with extracts from principal authors)—second term—two hours.
5. Terence (Andria or Adelphi)—third term—two hours.
6. Cicero (Epistles)—third term—two hours.
7. Tacitus (Annals)—first term—two hours.
8. Pliny (Epistles)—first term—two hours.
9. Horace (Satires)—second term—two hours.
10. Suetonius—second term—two hours.
11. Livy (Book XXI or XXII)—third term—two hours.
12. Horace (Epistles)—third term—two hours.
13. Christian Hymns—first term—one hour.
14. Catullus —— second term—one hour.
15. Composition—third term—one hour.

N. B. Other works of Cicero, etc., may be read, or courses in other authors, as Plautus, Juvenal, etc., may be given if there is a sufficient call for them.

GREEK.

I.

1. Historical Selections—Xenophon and Herodotus.
4. Demosthenes.
7. Homer's Iliad.
10. Greek Drama.
13. Greek Testament.

16. Greek Literature.
19. Hebrew.

II.

2. Historical Selections—continued.
5. Plato's Apology and Crito.
8. Homer's Odyssey.
11. Greek Drama.
14. Greek Testament.
17. Greek Literature.
20. Hebrew.

III.

5. Lysias and Isocrates.
6. Thucydides—Speeches in.
9. Pindar.
12. Plato, Pædo, or the Tenth Book of the Laws.
15. Greek Testament.
18. Greek Literature.
21. Hebrew.

The above courses in Greek and in Hebrew are arranged according to the succession of terms in which they regularly come—"I," Fall Term; "II," Winter Term; and "III," Spring Term. The numerals 1, 2, 3, indicate the courses of the Freshman year; 4, 5, 6, those of the Sophomore year; 7, 8, 9, those of the Junior year; 10, 11, 12, those of the Senior year. From 13 on, the courses are collateral or elective. Those from 7 to 12, that is, of the Junior and Senior years, are also elective. Course 1 is always to be taken first. To find the number of hours a week allotted to each course in each term, turn to the "Courses of Study."

The methods used in teaching are based upon a firm conviction that it is *not* best to make the work dry and difficult; that it *is* best to aim at a good reading knowledge for the student; to introduce him early to a large amount of reading; and to let his knowledge of the language grow largely out of the text itself, rather than be confined to the outside help of books.

More minute study comes later, as the aptitude for it is developed.

Careful attention is given to matters of history, archæology, and mythology, related to the texts read

There is, everywhere, a free use of maps and charts, of which the Department has a good and constantly increasing supply.

Collateral research is required at every stage of all parts of the work.

Philology is one recitation a week, running through the year, beginning with the facts, and proceeding from them to the principles.

In Hebrew the same principles and methods govern as in Greek.

MATHEMATICS.

The Preparatory work covers the completion of arithmetic, three terms in algebra, and two terms in geometry.

The following courses are provided in the collegiate department:

1. Advanced Algebra—a course of *five hours*. Fall Term.
2. Solid and Spherical Geometry—a course of *four hours*. Winter Term.
3. Application of Algebra to Geometry, and Original Geometrical Demonstration and Solution—a course of *four hours*. Spring Term.
4. Plane and Spherical Trigonometry—a course of *five hours*. Fall Term.
5. General Geometry—a course of *five hours*. Winter Term.
6. Differential and Integral Calculus, with their applications to Geometry and Physical Science—a course of *five hours*. Spring Term.
7. Advanced Calculus—a course of *three hours*. Fall Term.
8. Advanced Calculus—a course of *three hours*. Winter Term.

9. Modern Higher Algebra, including determinants—a course of *two hours*. Spring Term.

10. Quarternions—a course of *three hours*. Fall Term.

Courses 1, 3, 5 and 6 may be elected by students in whose General Courses they are not required studies.

ASTRONOMY AND APPLIED MATHEMATICS.

ASTRONOMY.

1. A course of *three hours* during the Winter Term. The gaining of an accurate and comprehensive idea of the Framework of the heavens is insisted upon.

2. A course of *three hours*, during the Spring Term, being a continuation of the above, in descriptive astronomy, special attention being given to modern methods and results.

3. *Elective.* A course of *three hours* per week during the entire year, including a large amount of practical work in the observatory, solar and lunar eclipses, reductions for obtaining time, latitude, longitude, etc. So far as possible, reductions are based upon the observations taken by the individual student.

Students desiring to do more advanced work will be given special direction in various lines of investigation, and will be granted free use of the observatory equipment in the prosecution of their studies.

PHYSICS.

1. A course of five hours during the winter term in elementary work, covering Mechanics, Hydrostatics, Pneumatics, Electricity and Magnetism.

2. A course of five hours in the spring term in Sound, Heat and Light.

3 and 4. A course of three hours in the winter term and three hours in the spring term, largely mathematical in treatment. The special subjects taken up are elected by the class, but the same subject will not usually be taught in successive years, thus enabling students to cover the whole field.

5. A course of three hours in the fall term in Meteorology and Mechanics of the atmosphere.

6. A course of one hour, in the spring term, in Sound in its relation to music.—This is a Conservatory class.

SURVEYING.

Elective.—A course of three hours during the spring term in practical surveying.—Land, Railroad, Leveling, Topographical Plotting, Field work.

CHEMISTRY.

Required.—Chemistry of the Non-Metals three times per week, together with Laboratory practice in the grouping and separating of Metals and Acids, two days each week and two hours each day, Fall term.

Elective.—2. Qualitative Chemical Analysis, Winter term. Laboratory practice two hours each day of the week.

3. Course 2 continued, 3 days per week during Spring term.

4. Organic Chemistry, Laboratory work two hours per day, five days each week, Fall term.

5. A three hours course in Quantitative Chemistry, Laboratory work, six hours per week, Winter term.

6. Mineralogy, descriptive and determinative; Laboratory work two hours per day, three days each week, Spring term.

7. Sanitary Science, lectures three times each week, Fall term.

8. Advanced work in the above courses will be given to students showing special proficiency.

Students expecting to teach will be given work to prepare them in chemical manipulations, the care and management of a Laboratory, etc.

BIOLOGY.

Required.—As preparatory to the College work, a term's work each in Human Physiology and Systematic Botany is taught.

In Freshman Year all students are required to take Zoology four hours. Study from actual specimens is carried on as far as possible. Spring term.

Elective.—1. Microscopy, the practical study of the use of

the Microscope in Biological Research. Each student is furnished with a Compound Microscope and other appliances for the preparation and mounting of objects for study; Winter term, two hours each day, three days each week.

2. General Biology, in which underlying principles are discussed and low forms of life, both animal and vegetable, studied. Two hours of Laboratory work each day, and three days per week, Fall term.

3. Animal Biology, a continuation of Course 2. Laboratory work two hours per day, three days per week; Spring term.

4. Vegetable Biology, also a continuation of course 2, in which several type forms of vegetable life are studied. Laboratory practice two hours a day, three days per week; Spring term.

5. ***Research Class***, for the discussion of current Biological topics, reviews of periodical literature, etc., will meet once a week, and a class will be formed, during any term, when a sufficient number apply for it.

It is desirable that Course 1 should be taken before 2, 3 and 4, and Course 2 should precede 3 and 4.

In Courses 2, 3 and 4, students are required to (a) collect their material as far as practicable, (b) observe and study the object itself, (c) make careful notes on all points observed, (d) make drawings of separate structures and diagrams showing their relations to other structures, and (e) embodying the knowledge thus obtained, and no other, in a written account.

Students who show special proficiency in courses 2, 3 and 4 may continue the work as Collateral Research. Research work is now being done in Bacteriology, Animal Histology, Water Analysis, etc.

GEOLOGY.

Dynamical and Historical, five times a week.

Advanced work will be given to students showing special proficiency.

HISTORY.

1. European History. 1500 to 1648. Lodge's Modern

Europe and Seebohm's Protestant Revolution. 3 hours, 1st term.

2. European History. 1648 to 1740. Lodge, and Gardiner's English Revolution. 2 hours, 1st term.

3. European History. 1740 to 1815. Lodge. 3 hours, 2d term.

4. European History since 1815. Müller's History of Recent Times. McCarthy's Epoch of Reform. 3 hours, 3d term.

5. Political and Constitutional History of the United States. Text-book and lectures. Studies by members of the class. 3 hours, 2d term.

6. General History of Civilization. Text-book and lectures. Open only to advanced students. 3 hours, 1st term.

POLITICS AND ECONOMICS.

1. Political Philosophy. Lectures, 2 hours, 1st term.

2. Political Science and Comparative Constitutional Law. Lectures and text-book. Burgess or Wilson. 3 hours, 2d term.

3. Practical Politics. Lectures and Studies from the class. 3 hours, 3rd term.

4. International Law. Woolsey. 4 hours, 3rd term.

5. Political Economy. Text-book and lectures. 4 hours, 1st term.

6. Finance. Lectures and text-book. 3 hours, 3rd term.

7. Research. Courses of two hours each term. Original studies from the class; reports on books and articles from the periodicals; suggestions as to methods of work; etc. Credits of from one to three hours at the discretion of the instructor.

BELLES-LETTRES.

An examination of the tabulated courses will be sufficient to determine the work done. The range of studies is comparatively broad and the instruction is thorough.

PHILOSOPHY.

Required—I. Psychology—Method, by lectures and daily examination of standard authors.

Analysis of Mental Phenomena and Faculties specially insisted upon—first half of the year.

II. Logic—Inductive and Deductive—The identity of fundamental principles explained, and the special office of each form of Logic given. For outlines of the subject, Jevons; for fuller study of special subject, Mill and Lotze—half a year.

Elective.—III. History of Philosophy.—This must be preceded by Psychology in order that there may be a standard of Philosophy in the mind of the student with which to compare the theories advanced by the different Schools. A thorough analysis of each school will be presented, with the twofold aim of learning the History of Philosophic Thought, and determining what is true in the different systems studied. The first half of the year—several works used.

IV. Moral Science.—The fundamental principles will first be considered, then their application to human life. This study follows Psychology, and is pursued in the latter half of the year. One term—Calderwood and Porter.

V. Theism—Bowne used as a text book—taught during the Spring term.

VI. Evidences of Christianity—a careful scrutiny of the several classes of evidence relied upon, with the study of the bearing of the same on the question of a divine revelation as appearing in the Bible.

SCIENCE ASSOCIATION.

During the past year a great step in advance has been made in the organization of a Science Association for the promotion of advanced work in the various departments. This Association is divided into three sections devoted respectively to Natural and Physical Science, to Language and Literature, and to Political and Social Science. The sections meet separately each week for an hour and a half for the presentation of reports

on the latest books and periodicals, and for the reading and discussion of original papers. Provision is made for a general meeting of the whole association once in each month. The membership consists of students (mainly from the upper classes), members of the Faculty, resident graduates, and such other residents as may be interested in and prepared for the work. The association has already proved of great value in stimulating students and teachers to keep up with the latest work being done in the various fields of study, in providing opportunity for the fuller investigation of subjects which can be little more than touched upon in the class-room, and in giving to all practice in that thorough and independent working-up of special topics which is necessary in the future work of those who enter the learned professions. The research work upon which we have for some time laid stress will in the future be carried on mainly in connection with the new association.

DEPARTMENT OF ORATORY.

The college has, from the first, felt the need of work in ***Oratory in connection with its courses of study.*** No greater perversion of meaning exists than that which calls Elocution simply an accomplishment. There is no branch of education which touches practical life more constantly and vitally. The fact that speech is common to all races of men shows its great value. Colleges have not given that attention to the study of the science of speech and the cultivation of the powers of expression that the subject demands. This grows in part out of the fact, perhaps, that the country is flooded with men, called elocutionists, who have introduced unnatural mannerisms into speech, perverting thought rather than giving expression to it. The real art of expression is the adaptation of voice, gesture—the physical—to the meaning of the sentence or discourse spoken. The end sought is the objective presentation of that

which is subjective—the accurate unfolding or declaration of thought. Dr. Holland says, "Thousands of young men and women are graduating from our institutions, expecting to become professional speakers, who do not stop to think that to become a successful public speaker requires as much special preparation as for any given department of professional life."

Cicero asserts, in substance, that manner is of more importance than matter. Bishop Butler speaking of the Elder Pitt's celebrated speech on the 'Stamp Act' said: 'There is nothing which an ordinary man might not have said; it was the *manner*, and the manner *only* which produced the effect.' "

Possibly some of these statements may be considered slight exaggerations, but it is certainly true that in ***the best scholarship for practical ends culture is two-fold,*** thought and expression of thought. It is evident that, subjectively, mental energy loses half its power when hidden behind imperfect and faulty modes of expression; we think in words and sentences. And it is also true that most scholars desire to employ knowledge in such a way as to impress the public most fully.

The Department of Oratory has opened in the college with very gratifying evidences of favor. Its work is elective, and has been chosen by a large percentage of students in the literary courses. The opportunity for supplementing the Department work in Elocution proper with the English Classics, Psychology and Voice Culture, will give a breadth and scope for the course of instruction which schools distinctively elocutionary do not offer. It is proper to mention here that an opportunity of appearing in weekly public recitals in connection with the exercises of the Conservatory of Music is given those whose work is of a superior order. Each term closes with a special recital.

Method of Instruction.—This is similar to that employed by the late Lewis B. Monroe, Dean of the Boston School of Oratory, with such adaptations of the principles of expression for-

mulated by Francois Delsarte as are considered most essential and practical.

A Complete Course in Oratory embraces vocal and physical gymnastics, insuring culture and flexibility of voice and bodily action; ***sight reading***, for securing mental promptness and accuracy; expression, forensic, dramatic, pantomimic.

The ***Growing Necessity*** for skillful teachers of expression in the graded schools, not to speak of the acquirement of that which constitutes a stepping stone to eminence in professional life, and a graceful introduction into the first literary circles argue strongly in favor of a careful study of the "Art of Expression."

The Institution desires to develop the Department of Oratory into a school of oratory. It will probably take some time to accomplish this fully, but the following is a tentative effort in this direction. We print it, ***not as final,*** in the scope and form of work to be done—which will probably undergo great changes—but as showing to some extent the elements which enter into the problem. We invite criticisms and suggestions, hoping that in the course of a year we may be able fully to mature our plans. We solicit the attention of the learned public, particularly teachers, to this subject, that we may understand the wants to be met.

GENERAL OUTLINE OF COURSE IN ORATORY.

FIRST YEAR.

FIRST TERM.	SECOND TERM.	THIRD TERM.
Analytic Expression.	Analytic Expression.	Synthetic Expression.
Monroe's Sixth Reader.	Monroe's Sixth Reader.	Monroe's Sixth Reader.
Presentation of Individual Work.	Development of Action.	Public presentation of Recitative and Declamatory Work.
(With Criticism.)	Recitative and Declamatory Work.	(With Criticism.)
McIlvaine's Elements of Oratory.	McIlvaine's Elements of Oratory.	McIlvaine's Elements of Oratory.
The above outline includes the cultivation of voice, development of individual conception, and a thorough drill in the exemplification of the Principles of Inflection, Emphasis, Rate, Pitch, Stress and Voice Quality.	The second term will be a continuation of the principles Theoretic and Exemplified, with more specific instructions regarding Dramatic Action. Action is never left out of consideration in the study of expression.	The third term should enable the student to secure some of those synthetic and normal results which spring naturally from proper analysis. It is illustrated with selections in Transition and Style.

SECOND YEAR.

Ross' Manual of Expression.	Ross' Manual of Expression.	Ross' Manual of Expression.
Dramatic Action and Phil. of Expression.	Delsarte.	Delsarte.
Original Work.	Original Work.	Original Work.

The above course may be completed in two years and carry on some other regular College or Department work.

We hope soon to fill up and arrange the course so as to warrant the giving of a diploma or granting a degree.

COMMERCIAL DEPARTMENT.

The object of this department is two-fold:

1. It gives to all who may wish to engage in busines pursuits an opportunity to fit themselves in the most practical manner possible.

2. It affords an opportunity to all students at their option to take commercial studies as a part of any literary course, and receive credit for the same.

The benefits of a business education are becoming more apparent each year. The rapid increase in our population is causing a corresponding growth in our commercial transactions. This increased activity in business circles must necessarily open the way to many a young man and young woman for a successful entrance into the active duties of life. The first question which every thoughtful young person will ask is, How may I best fit myself for success in life? The answer, Educate yourself.

Whatever you may choose as your life work there is no question but that a practical business education will be of value to you.

One reason why so many commercial school graduates are not fitted for work is because of the short courses which so many schools present. Two to four months is not time enough in which to learn a profession. Practice makes perfect, and it requires a great deal of it at that. The business course here is designed to cover a period of nine months. In its preparation we have had in mind not simply a trained book-keeper, but it has been arranged with the aim of developing the business capacity of the student by a thorough course of training. We impart a knowledge of the laws which govern business tran-

sactions; a knowledge of civil government, grammar, mathematics, correspondence, penmanship, business forms, etc.; and thus by a broad and systematic training our students will be more successful men and women, and worthier citizens of our country.

By some thé course can be finished in less time. This depends upon the ability, experience and application of the student.

Anyone with sufficient ability to pursue the prescribed studies can enter at any time and pursue any study he desires; but as some of our classes are formed anew at the beginning of each term, it will be to the student's advantage to enter then if possible to do so.

COURSE OF STUDY.

FALL TERM.	WINTER TERM.	SPRING TERM.
Book-keeping and Business Practice..	Book-keeping and Business Practice.	Book-keeping and Office Work.
English Grammar.	English Grammar.	Com'l Forms.
Penmanship.	Penmanship.	Penmanship.
Com'l Arithmetic.	Com'l Arithmetic.	Com'l Arithmetic.
Correspondence.	Commercial Law.	Civil Government.
Spelling.	Rapid Calculation.	Rapid Calculation.

NOTE.—*Beginning Classes* in book-keeping and penmanship are formed at the commencement of each term; beginning classes in the other branches are formed at the commencement of terms in which they do not regularly occur when there is sufficient demand for them.

Book-keeping.—This subject is given the prominence in the school which it demands by its importance as a branch of business education. The student is first given work in the THEORY DEPARTMENT, where he is taught the principles of single and double entry book-keeping by means of text book work, class recitation, talks and blackboard illustrations. After he has become familiar with the theory he is given work in the

BUSINESS PRACTICE DEPARTMENT,

where the principles of actual business are fully illustrated and the student is afforded an opportunity to apply the knowledge acquired in the theory department. He uses no text book, but conducts personally a business on his own account, and is thrown entirely upon his own resources. What he learns here by experience he will never forget. The system is so arranged that there are no two sets of books in the school that are alike, and hence there can be no opportunity for copying results. Only real values bring out and attest the ability and sagacity of the person concerned. By this method the student s taught to think and act for himself, consequently his powers and capabilities are developed to a remarkable degree.

Upon entering this department the student is furnished with a cash capital, together with all the blanks and printed stationery necessary for the transaction of business. Aside from the set of books, the following business forms will be used during the Course: Notes, Drafts, Receipts, Checks, Bill Heads, Shipping Invoices, Certificates of Deposit, Stock Certificates, Deposit Slips, Insurance Policies, Bills of Exchange, Account Sales, Statements, Deeds, Mortgages, Leases, Bills of Sale, and in fact every form ordinarily used in business. Our merchandise has a given value, and is bought and sold at a discount proportionate to the supply and demand. The school is also supplied with college currency. The capital with which the student has been furnished he now deposits in one of the College banks and takes a Pass Book. He next leases a place of business and at once begins to job. He buys from the student merchants at the best discounts possible, and finds in the commercial exchange customers for all the goods he may have to sell. He is shown how to properly fill out the various forms, make the different entries, correctly post the same, make out statements and close the Ledger. He goes through this process several times until he becomes familiar with it and is able to finish a set without help. He is also compelled to

do some jobbing in each set for the purpose of increasing the number of the transactions, and enabling him successfully to handle large numbers in trial balances, advances through the different lines of trade in each of which he finds some principle which is as yet new to him. This work necessitates the use of a bank, Wholesale Merchandise Emporium, Commercial Exchange, etc. These offices are in charge of advanced students and are provided with large blank books and all necessary articles for transacting the business.

Business Arithmetic.—To be quick and accurate at figures is an accomplishment that all should possess. For this reason considerable prominence is given this subject in our course, and aside from the regular text-book work we endeavor to make the student proficient in this direction by means of class drills in rapid calculations and short methods.

Commercial Law.—We do not aim to make lawyers of our students, but we do endeavor to give them such a knowledge of law as will enable them to transact ordinary business with intelligence. The subjects to which special attention is given are Contracts, Negotiable Paper, Agency, Partnership, Shipping, Insurance, Liens, Real Estate Conveyances, etc. The laws in regard to these subjects are of such importance to the business man that he should have a knowledge of them.

Grammar and Correspondence.—To be able to write a business letter which is well worded and the parts of which are properly arranged is one of the important items of a business man's education. The student is instructed and drilled in the form and composition of all kinds of business letters.

Civil Government.—The student receives thorough instruction in this very important branch, without a knowledge of which no man is competent to assume the duties of citizenship.

Business Writing.—We teach a plain, rapid, bold business hand, such as is called for in correspondence and book-keeping work. We aim at neatness, legibility, and rapidity, to the total exclusion of all superfluous lines and flourishes. We are

also prepared to accommodate any one desiring to do work in ornamental penmanship.

Spelling.—A word misspelled will greatly tend toward lowering a person's educational standing in the estimation of a refined and experienced man.

In teaching spelling we use a series of lessons forming a complete collection of difficult common words, with definitions, pronunciations, and rules concerning capitals.

SHORTHAND AND TYPEWRITING.

Shorthand.—In the Commercial Department the Eclectic Shorthand is employed. We endorse the following propositions which, though prepared by its special advocates, we insert in the Year Book:

1. IT IS THE BRIEFEST.
2. IT IS THE SIMPLEST.
3. IT IS THE EASIEST TO WRITE.
4. IT IS THE MOST LEGIBLE.

PROP. 1.—In December, 1880, *Browne's Phonographic Monthly*, then the leading stenographic journal, published comparisons of twenty-five of the best systems in existence, giving the writing in all the systems, of a stanza of five lines. The Eclectic writing of the stanza contained, by actual computation, 14 per cent less than the briefest of the others (Graham's), and 40 per cent less than the longest (Lindsley's) and was 30 per cent briefer than the average of all of them; *hence the briefest system.*

PROP. 2.—It is the only system of the twenty-five which is based on the English alphabet. It contains less than fifty word signs, and has no exceptions to rules; *hence the simplest system.*

PROP. 3.—*It is the only system of the twenty-five which dispenses with vertical characters*, writing with characters in three directions instead of four, and the only system of connective vowels similar in form to the consonants, and with a single exception the only light-line system; *hence the easiest system to write.*

PROP. 4.—It is the only system of the twenty-five that makes as free use of vowels as of consonants, and while writing words with less strokes, *still by its principles writes words more fully and with less memorizing of word signs than any other of the twenty-five.* It also has no vertical strokes to become confounded in rapid writing with similar oblique characters; *hence the most legible system.* The average time necessary for the completion of amanuensis course about four months; reporter's course, longer.

Typewritting.—Our students have the use of Remington and Yost Typewriters, the best in the market to-day, and are drilled upon the principles of correspondence. An hour a day is also devoted to the improvement of their penmanship.

DIPLOMA AND POSITIONS.

Upon the satisfactory completion of the prescribed business or shorthand course the student is granted a diploma. We do not guarantee positions to our graduates—no honorable school will do this—but we always take pleasure in recommending or aiding a worthy student, who is well qualified, in every effort to secure a situation. There is an increasing demand for amanuenses and bookkeepers who are willing to work, and one who thoroughly prepares himself is almost sure of obtaining profitable employment.

Special Advantages.—This school being one of the departments of Albion College, it possesses several advantages not to be found elsewhere. The students may all meet together once each day for chapel exercises. The benefits to be derived from attending the college literary societies are inestimable. Some of the best musicians and most eminent lecturers may be heard here each term. The college library containing over *nine thousand* volumes may be used by all students. All students taking a full course may pursue any study in the regular literary course free of charge.

RATES OF TUITION.

Business Course.—Tuition for full work in this course, each term being from ten to fourteen weeks in length:

First term, in advance.....$20.00
Second term, in advance..... 17.50
Third term, in advance..... 12.50

Books and Stationery.—The books and stationery required for the entire course will cost $10 or $12.

Shorthand Course.—Shorthand and Typewriting, per term $15
Typewriting alone, per term..... $5

Books and stationery for same will cost from $1 to $2.50.

Special Classes.—Besides the regular course there will be classes to accommodate students from the other departments of the college who may wish to do work with us, at the following rates:

Book-keeping, per term, 5 hours a week$5.00
Penmanship, per term, 5 hours a week..... 3.00
" " " 3 " " 2.50
Commercial Law or Arithmetic, (term)..... 2.50

We earnestly request all persons who contemplate entering a school of this kind to visit Albion College, see the Principal and teachers, inspect the workings of the school, or write us before entering any similar institution. Visitors are always welcome.

For any further information concerning this department address Chas. L. McClellan, the Principal.

CONSERVATORY OF MUSIC.

The work in this Department consists principally of instruction on the Piano, Organ and Violin, instruction in Vocal Music, in Harmony and Voice Culture.

Piano.—It is the chief aim of the Conservatory to teach both the Science and the Art of Music in such a thorough and systematic way that they shall be, *what they so often are not, of available* and *practical* use to the student after having completed a course. Great care is taken to secure a correct technique; also a proper position of the person, hand and arm while the pupil is seated at the instrument.

Careful attention is given to the development of the muscles of the hand and fingers, and in acquiring flexibility of fingers, wrist, etc. In short, the methods which have for so many years made the German Conservatories famous, are closely adhered to. Much time is given to the cultivation of a taste for the best forms of classic music.

The Course in Piano Music consists of ***Seven Grades,*** each based upon such studies and selected pieces as form the standard of the various degrees of proficiency at the best institutions of a similar kind. Upon entering, each student will be examined and graded accordingly, while promotion is not limited by time, but depends entirely upon the progress of the student. A student of ability can, with proper application, almost finish the first three grades in one year. In most cases four years will be sufficient to complete the course. It is advisable that students should begin music with the determination of completing, at least a certain part of the course, if not the whole.

Instruction is given, both in ***private lessons and by "class-***

teaching," according to the preference of the student. The classes consist of either two or three pupils.

Pipe Organ.—Every facility for systematic and thorongh instruction to acquire a mastery of all kinds of organ music is afforded the student, and a large pipe organ is at the disposal of the Conservatory. A knowledge of harmony is indispensable to a successful organ study.

Violin.—A regular progressive course is laid out which is pursued in the Conservatory. Classes also are formed for ensemble playing, which enables the student to become familiar with the best compositions of Violin literature, and also offers opportunities of playing at the Recitals and Concerts of the Conservatory.

Orchestra.—As a part of the educational facilities of the Conservatory, there is also maintained, in efficient organization, ***a complete Orchestra.*** In this orchestra there are at present nearly fifty performers. These consist principally of students in the College, but some of the members reside in the city of Albion and have been connected with the orchestra for years.

Although orchestral music is generally transferred to the piano, yet the full effects of the Orchestra cannot be given by that instrument. Orchestral music is written in a special form and character, both to embody the idea of the composer, and also with reference to the instruments that are to express and interpret that idea. These instruments have a tone-color peculiarly their own, which is lost by transference of the music to the piano. The ***Orchestra thus opens to students of music an entirely new field of instruction*** and culture which is of great value. It is, however, only the more advanced scholars who can advantageously avail themselves of its benefits, and only these, therefore, are allowed to become members.

Vocal.—Important changes have been made in the Vocal Department. Especial attention will be given to the development of the voice, having special reference to a proper method of breathing, proper emission of tone and accurate attack of pitch.

By referring to the list of students in ***voice culture*** it will be seen that this department is very rapidly growing. Very many students who enter upon the study of the principles of vocal music, or join the chorus class, come to appreciate the desirableness of special voice training. All who desire to fit themselves for singing in church choirs, for teachers of vocal music, or for professional singing in any capacity, can here obtain the instruction and culture desired.

For all students desiring to study the principles of Vocal Music ***rudimental classes*** are organized, continuing through the year—the tuition for such instruction being merely nominal —to provide music for the most efficient movement of the class. After completing the study of the rudiments the students are admitted into the ***general chorus*** in which there is no tuition. The work of the chorus consists of the rendition of the higher forms of vocal music.

A model or juvenile class in vocal music has been formed, so as to prepare young persons for more extended study of music when they enter regularly upon the work of the conservatory. These young persons are thus preserved from contracting erroneous methods which would impair their progress in the future. A slight charge only is made for such instruction, as the conservatory expects to reap benefits in another form from this work in the future. These children are not catalogued in the Year Book.

All music students are organized into a ***Theory Class***, which meets each week for special instruction.

Students intending to teach music receive thorough instruction in the ***art of teaching***, a special class being organized for this purpose.

During the year there are ***several Public Recitals*** which are especially intended to improve the taste for, and promote the appreciation of the best masters. Haydn, Mozart, Beethoven, Bach, Mendelssohn and Schumann furnish the broadest subjects to express the depths and grandeur of musical concep-

tion. The students are required to take an active part in these exercises. Also Recitals are given at the College by some of the most eminent musicians of Boston and other eastern cities, so that the student shall not fail to come into relation with the highest power of the art of music.

Aside from the regular lessons, there is a ***weekly drill of the entire Conservatory*** in the catechism of music. At these gatherings instruction is given which there is no time to impart in connection with individual or class lessons. There are also weekly rehearsals to drill and fit for public playing. The student thus gains confidence, his faults are corrected, and he is prepared to use to the best advantage the knowledge acquired.

Harmony.— The importance of this branch of study need hardly be enlarged upon. It treats of the construction, entrance and progression of chords according to established rules. It is subdivided as follows: Formation of scales, Intervals, Triads and Seventh chords with their inversions and resolutions, Cadences, Altered Chords, Modulations, Suspensions, Passing and Changing Notes, Organ Point and Harmonization of given Melodies.

Text Books.—Parker's Harmony, Jadassohn's Harmony, Ayer's Counterpoint.

The courses have been arranged so as to secure the greatest thoroughness and proficiency in music as a science and an art. Students are admitted for a single term, but all will see the advantage of taking a full course of instruction, including, not only the ordinary lessons given on the piano, organ or violin, but also harmony and counterpoint. The literary studies of the course have been selected with reference both to sound and varied scholarship and the accomplishments of learning.

Persons are admitted into the ***Musical Course directly, on application,*** and are classified according to their proficiency in music.

The following is the course in Piano music:

COURSE OF STUDY.

[Diploma given on its completion.]

GRADE I.—Foundation studies by Emery, Matthews' twenty lessons to a beginner, studies by Gurlitt, Kohler, Biehl, Loeschhorn.

GRADE II.—Kohler Op. 50, Duvernoy Op. 120. Loeschhorn Op. 65.

GRADE III.—Bertini Op. 29. Loeschhorn Op. 66. Heller Op. 47. Hasert Op. 50. Kohler Op. 60.

GRADE IV.—Loeschhorn Op. 66. Berens Op. 61. Kohler Op. 128. Hasert Op. 50. Heller Op. 46.

GRADE V.—Czerny Op. 740. Loeschhorn Op. 67. Heller Op. 16. Kohler Op. 128.

GRADE VI.—Loeschhorn Op. 67—Op. 118. Cramer's Studies. Harmony, Musical History.

GRADE VII.—Cramer's Studies. Chopin Op. 10. Mosheles Op. 70. Kessler Op. 20. Clementi.—Harmony. Musical History. Counterpoint.

Text Books in Harmony—Parker's Theory, Jadassohn's Harmony, Ayer's Counterpoint.

Degree of Bachelor of Music.—The degree of Bachelor of Music will be conferred upon such students as, in addition to the foregoing, evince the skill and conception necessary artistically to perform the works of the most exacting character, and show an extended acquaintance with the science and history of Piano-Forte Literature and Piano-Forte playing, and pass examination in Harmony, Counterpoint, Musical Forms, Musical History and Acoustics. Aside from this, they must possess a good knowledge of Belles Lettres, including French, German and Italian. This will add about two years to the above tabulated course.

We call the attention of pupils to the following points:

Those who desire to get the largest benefit from study in

this department should be present on the first day of the term. They can be received later, but it is impossible to repair the loss sustained.

As the teachers are employed on fixed salaries no abatement from the charges for tuition can be made except in case of *protracted illness of the pupil*, when the loss will be shared with him.

Tuition must be paid in advance.

The teachers do not give instruction to persons who are not members of the Conservatory.

The course in Piano Music as laid down can usually be completed in four years, but no fixed time can be prescribed. This depends on the aptness of the pupil, and his fidelity to the work.

SCHOOL OF PAINTING.

The aim of this Department is to conduct the pupil with thoroughness from the simplest rudiments up to a knowledge of the higher branches of art, giving as far as possible a perfect understanding of all the work entered upon. It will be seen by reference to the Course of Study in painting, that the student receives instruction in the elementary courses of drawing. These can be taken in the class with others who are in this and the Literary Departments. Then, special and individual attention is given to the study of ***object drawing, linear and aerial perspective; landscape, figure, flower and fruit painting, in oil, water colors and pastel: painting and crayoning portraits, pen drawing and India ink wash drawing for reproduction, decorative painting and design.***

The Art Department connected with the college adds much to the needed practical side of education.

Prof. Thompson of the Worcester Technical School tells us that "A boy who spends two hours a week in drawing, and the rest of the time in working at the bench, learns his business faster, and becomes more skillful in it, than one who works all the time." Again, "It is calculated that the productive efficiency of every machine shop would be increased thirty-three per cent if every journeyman could read any common working drawing and work by it."

Mr. Ware, Professor of Architecture in the Boston Institute of Technology, says "Drawing is an invaluable element in general education. To the working man it is of the greatest practical use; it makes him a more intelligent and serviceable workman. If he attains to real skill in the use of his pencil, and develops the tastes and talents that cannot without the

training be either discovered or made use of, he becomes a valuable person at once. Every branch of our manufactures is suffering from the want of just this intelligence and skill."

Says Prof. Bail, of Yale College, "The whole nation is deploring the lack of good ornamental designers. We are becoming tired of sending so many millions to Europe for articles that we might produce cheaper at home if we had skilled designers. This branch of industry affects articles for the homliest use."

But it is well known that art study, besides having a tangible value in its relations to manufacture, is designed to promote improvement in taste. The highest and best purpose of any attainment is that which ministers to the intellectual and spiritual wants of man; few channels being more permanent than the perennial delight afforded by good art.

Painting cannot be successfully followed by one ignorant of such truths in the sciences as bear directly upon the art. Anatomy, Natural Philosophy, Botany, Chemistry, etc., cannot be taught in the private studios as effectually as by departments having these studies in charge. These studies can be pursued by students of painting without interfering with their hours for lessons.

Landscape study from nature is much more easily and agreeably accomplished here in Albion than in the large cities, as the college buildings are located near the open country and many beautiful scenes are found along the Kalamazoo river, not a quarter of a mile from the studio. Especial attention is given to this branch during the spring and fall terms.

The new Letters course now offers an attraction to students who might wish to take music and painting in connection with such a course. A certain uumber of hours devoted to painting may be credited in this course if the student desires.

Decorative Painting.—This department of the school of Painting was opened two years ago, and is meeting a want which has for some time been felt in the institution. The interest is growing and much pains is taken to provide that which is beautiful and complete in this art. The work is all completed here—setting the colors by heat, etc.

The charges for instruction in the School of Painting—which are moderate—will be found on another page.

COURSE OF STUDY.

FIRST YEAR.

FIRST TERM.—Freehand outline from cards, chart and blackboard lessons.....1-5
Dictation lessons of right line figures and simple curves. Linear drawing, with definitions in plain Geometry....2-5
Oil Painting in monochrome from simple designs 2-5
SECOND TERM.—Drawing from more advanced copies, flat examples. Memory and dictation lessons.....1-5
Object lessons illustrated by drawings, etc.....1-5
Shading from flat and simple objects in Charcoal.....1-5
Painting in Oil from simple designs 2-5
THIRD TERM.—Freehand outlines of ornaments and objects.....1-5
Drawing and shading from objects or casts.....1-5
Freehand drawing, and map drawing with memory and dictation lessons; in class three hours weekly
Painting in Oil from flat examples.....3-5

SECOND YEAR.

FIRST TERM.—Design in Geometric forms.....1-10
Dictation lessons in Crayon drawing, viz: at least two examples finished to absolute shading.....1-10
Painting from examples dictated, viz: from flat examples or objects.....4-5
SECOND TERM.—Model and object drawing.....1-5
Linear Perspective, shades and shadows, by instruments, in class, three hours weekly.
Harmony and mixture of colors (with text, Dresser and Von Bezold).....1-5
Design from natural foliage, and painting in Oil from natural objects and still life.....2-5
Pen drawing for Photo-engraving.....1-5
THIRD TERM.—Shading in chalk and color and India ink.....1-5
Painting in Sepia, Neutral tint, and Water Color 2-5
Prescribed reading on Painting, Sculpture and Architecture.....1-5
Portrait in Crayon.....1-5

THIRD YEAR.

FIRST TERM.—Complete Mechanical drawing by instruments. In class. Four hours weekly.
Historical lessons in Ornamental design, (text, Dresser).....1-5
Painting in Oil. Broadhand painting from natural objects.....4-5
SECOND TERM.—Art History and Biography.....1-10
Painting from Nature.....9-10
THIRD TERM.—Drawing and Shading from Human Form 1-5
Prescribed reading on Art...1-5
Portrait in oil.....3-5

FOURTH YEAR.

FIRST TERM.—The Renaissance in Painting in Italy, and the early methods and masters.....1-5
Painting from Life and Nature.....4-5
SECOND TERM.—Modern European Art.....1-10
Selection, Composition and Design. Animal and Landscape painting.....9-10
THIRD TERM. — Contemporary Art. American Art and Artists.....1-10
Painting from Nature, Animal, Landscape and Figure 9-10

Full work demands the attendance of the student three hours a day in the studio. The numeral 1 in the course of study stands for the complete work of a term, hence 1-5 stands for one-fifth of a term's work, etc.

Degree.—The degree of Bachelor of Painting, (B. P.,) will be given on the satisfactory completion of two years more of work than the above,—gaining special skill in portrait and landscape Painting in addition to such knowledge of Belles Lettres, including the French, German and Italian languages, as are provided for in the Letters Course,—that is, three years of language in all.

ASSOCIATION OF DEPARTMENTS.

In the administration of the affairs of Albion College, it has been the supreme purpose of those in charge to make the work exceedingly thorough, and to supply the students with the most favorable conditions for securing the largest results of study. Originally the work done was wholly literary. It is intended in the Preparatory school to afford the best advantages to ambitious young men and women fitting themselves for college. The Preparatory School of this institution offers the student helps which no separate school could possibly afford. These students having access to a library and other appliances much more valuable than any purely preparatory school can supply; also being thrown into the preeminently scholastic atmosphere of the College of Liberal Arts; and still farther enjoying largely the instruction of college Professors, are permitted to carry forward their studies under the most favorable circumstances.

The work of a Conservatory of Music that is not prosecuted in connection with a literary institution is necessarily exceedingly limited. In this thinking age but few young people are satisfied with a musical education that does not reach out into the fields of general scholarship. The conviction is largely

cherished that during the period of musical training it is very desirable to gain a cultivation of the mind that can be obtained only by pursuing such branches as make up a course of literary studies. Thus we get in the best sense educated musicians, who in connection with proficiency in one of the fine arts are equipped for all the intellectual demands of the day. These statements apply with equal force in the School of Painting. Aside from more general branches of study, such as literature, language, etc., for the fullest skill in painting the artist needs a knowledge of Physiology, Natural History, Botany, Perspective, etc.

The Commercial Department was created not only to meet a demand for professional business training which is given as preparatory to graduation from this department, but also to put within the reach of all students in the institution an opoprtunity to obtain so much knowledge of commercial principles and business forms as are needed in the various industries of life. With the culture of the intellect that is fully subjective there should be joined that which has an objective side, so that the scholarship acquired shall put the student in touch with practical life.

Oratory studied alone most commonly fosters mannerisms that are offensive to scholars, but when made one side of a rational system of education it serves a very valuable end. Thought and the ability to express thought should go together. Indeed thought has greater content as we are able justly and fully to give expression to it. The right rendering of any mental conception both defines and puts meaning into it.

Thus in full-orbed scholarship all sides of our mental being must be trained. Underneath specialization there must be a broad basis of training. This cannot easily be laid when schools are detached, and limited opportunities restrict the action of our powers. Hence it is apparent that the college helps and strengthens the Conservatory of Music, while many students in the college find it convenient to gratify their taste or desire for music. Persons devoted to natural science gain in the School of Drawing and Painting the ability to express and fix on paper the special forms they wish to preserve. In short a unity of schools not only makes an institution larger but makes each school more efficient in doing its special work.

LOCATION, BUILDINGS AND RESOURCES.

Location.—As with many other institutions of learning, the college bears the name of the place where it is located. Albion is a thriving young city of 5,000 inhabitants, situated in Calhoun County near the central portion of the lower Peninsula of Michigan. It is one of the most beautiful towns in the state. The ground is rolling and picturesque, so that the view is delightful as gained from any point. It has several large manufacturing establishments which add much to the capital of the place. The locality is very healthy, depending partly on the topography of the place and partly on its unusually pure water. Its system of water works is supplied with water from artesian wells which reach down into the rocks 100 feet from the surface. The postal facilities are equal to those of the largest cities as there is free mail delivery. Albion is on the main line of the Michigan Central Railroad, 95 miles west of Detroit. The facilities of communication are all that could be desired. The Lansing Division of the Lake Shore and Michigan Southern crosses the Central at this place, providing direct connections with the main line of the Lake Shore on the South; and at the North with the Grand Rapids Division of the Michigan Central, the Detroit, Lansing and Northern, the Grand Trunk, and other lines. The country about Albion possesses much of scenic beauty, and comprises some of the finest farming lands in the State.

Campus.—The College Campus contains about twenty acres of ground, fifteen acres occupied by the buildings and lying on the west side of the buildings in the direction of the business portion of the city. The balance of the ground is on the east side of the buildings, and is principally covered by a

beautiful grove. The campus is by nature a charming part of the city, and is much improved by art.

Buildings.—The buildings occupy the highest portion of the grounds, some forty feet above the level of the principal business street, and are reached by a gradual ascent. They are a little less than a half mile from the center of the city. There are three main buildings contiguous to each other, which are built of brick and stuccoed. The central one of these is 40x100 feet, and four stories high. It is devoted principally to the Conservatory of Music and the Department of Natural Science. One half of the second and third stories is occupied by the Museum, and the other half by the Chemical and Biological Laboratories. The other two buildings are each 46x80 feet, and three stories high. One of these is the Chapel and Library building, which also contains the Business Office and President's room. The other is divided up into Lecture and Recitation Rooms, containing, in addition, the Halls of the two College Literary Societies and the Art Studio. On the campus, also, stands the Astronomical Observatory, which is admirably equipped. Just across the street from the campus on the North is the President's House, which overlooks the campus on the West, and is one of the finest residences in the city.

The Sigma Chi Fraternity have built the past year a beautiful brick and stone chapter house which is located at the east point of the college grove.

Financial Resources.—The College possesses about $230,000 of productive endowment, and $150,000 of unproductive endowment. Measures are being pushed to endow an Alumni Professorship, which are meeting with gratifying success. The funds for carrying forward the work of the institution are derived from the productive endowment and student's fees. In the College and Preparatory School no tuition is charged. An incidental fee of $5.00 a term is collected from each student. A statement of tuition charged for instruction in music, painting, commercial studies and oratory will be found on a later page

of the Year Book. The Matriculation fee on entering the college is $5, and the Graduation fee is $5. The Endowment Fund is in the hands of an Endowment Fund Board, which exists in pursuance of a special State Statute, said Board being authorized and required by law to pay over to the Trustees of the college only the interest of the fund they control.

ASTRONOMICAL OBSERVATORY.

The Observatory stands on the campus, on high ground, affording an uninterrupted view in all directions. The building, built in 1883, is of brick, two stories high, with a round tower which rises to three stories, and is surmounted by a dome.

On the lower floor are the lecture room of the department of Astronomy and Applied Mathematics, and the pier-rooms through which pass the brick supports for the fixed instruments. These are also utilized for containing the apparatus employed in the study of Physics. On the second floor are the Transit room, containing the Transit Circle, Clock and Chronograph, a computing room, a room for portable instruments, used also as a workshop, and a room containing the Astronomical and Meteorological Library. Here are also kept the meteorological instruments, observations of which are taken three times a day and forwarded to the offices of the State Board of Health and the United States Signal Service. In the round tower is placed the Equatorial.

The instruments are of the best class, the chief among them being as follows:

1. A Transit Circle, by Fauth & Co., of four inches aperture, reading by two micrometer microscopes to single seconds. It is provided with micrometer in right ascension and declination.

2. A Siderial Clock by Fauth & Co.

3. A Chronograph of latest style, by Fauth & Co., with Saegmueller's maintaining power.

4. The Equatorial, constructed and mounted by Alvan Clark & Sons, of eight inches clear aperture, and provided with circles, driving clock, filar micrometer and a full outfit of eyepieces, both Huyghenian and Ramsden.

The above instruments are all in electrical connection that all observations may be recorded by the Chronograph.

The Meteorological Instruments include a Standard Barometer, Maximum and Minimum Thermometers and Psychrometer by J. & H. J. Green, Rain and Snow Gauges, etc.

Excellent instruments are also provided for practical work in field surveying.

The Astronomical and Meteorological Library contains over 350 bound volumes and pamphlets, always accessible to advanced students, for reference and research. Works of an elementary and more popular character are left in the general library.

Though the instruments are of the best, it is a maxim here that none of them are too good for use, and students are encouraged to employ them in their studies to as great an extent as they may be able. The advanced class in Astronomy is required to become familiar with the astronomical instruments and their adjustments to such an extent that they make reliable observations and reduce them accurately. So far as possible, all work is based upon observations taken by the student who performs the reduction.

It is a noteworthy fact that the vast bulk of astronomical knowledge has been gained by the use of instruments far inferior to those upon these grounds. The Transit Circle, with a good brain behind it, is adequate for nearly every class of observations to which such instruments are applied, and the Equatorial, which is supplied with an objective of unusual perfection of figure, is of the same size as those by which Dr. Huggins

made his remarkable studies in stella spectra and in star motion in the line of sight; by which Neison and Beer and Mädler made their renowned studies upon the moon, whose surface is now far better known than that of our own earth; by which Schiaparelli made his wonderful discoveries of the duplicate canals (?) upon our companion planets, Mars, etc., etc. It is true that this is an age of great telescopes, but the mechanical and optical difficulties in the way of their use render it certain that the really useful instruments of the future, as of to-day, will be found among those of smaller aperture and consequent facility of management.

LABORATORIES.

It has been the consistent policy of Albion College not to undertake to teach any line of natural science which it could not teach by the latest and most improved methods. Modern methods require that the student and not the teacher alone shall perform experiments, and thus practically test the truth of the various theories and principles which are investigated.

Accordingly when it has been proposed to make an extension in the course of study, the first concern has been as to proper laboratory facilities.

In chemistry, biology, physics, and astronomy, apparatus sufficient for the participation by the student in practical laboratory work has been provided.

The chemical and biological laboratories occupy the second and third stories of the central building. A large lecture room is devoted to recitations or lectures, and the working laboratories are near at hand.

Chemical Laboratory.—The Chemical Laboratory proper contains tables for twenty-five students which are mainly devoted

to qualitative chemistry. For this work they are furnished with all necessary reagents, apparatus, water supply, etc. Early in his course the student is assigned one of these tables which becomes his personal property to be used during the regular working hours and at other times at will. Apparatus or chemicals needed in his work are furnished from the general stock to be used by him without charge, provided they are returned in good order, the student paying only for so much as is used up by him. Special sets of apparatus are furnished for water-analysis, urine analysis, food adulterations, bacteriology, etc.

In connection with the lecture room are ten tables devoted to quantitative analysis. Here are furnished balances, combustion furnaces, thermometers, burettes, dessicators, rapid filtering apparatus and other appliances needed in the work. Considerable work of a practical nature is here done for outside parties, analyses of coal, gold bearing earth, oils, water, baking powders, etc.

The Biological Laboratory is situated on the second floor of the Central Building. It is furnished with twenty-five tables for students' use, at which dissections are made and all other biological work done. Sixteen compound microscopes are in almost constant use. Several hundred mounted specimens in all departments of biological research are provided, and the cabinet is rapidly growing. The laboratory is well provided with accessories, among which are imbedding, sliding and rocking microtomes, and a full outfit for bacteriological investigations. Mounting materials, stains and reagents of all kinds are furnished to the student at cost prices, and the preparation and mounting of his own specimens for study is an invariable regulation. As an outcome of his own work each student becomes provided with a valuable cabinet of specimens, material and formulæ that will enable him to prosecute original work along many lines.

The Physical Laboratory.—This laboratory is at present in

connection with the Observatory. It is provided with a fair equipment of apparatus for purposes of illustration and experiment. The workshop has recently been provided with a first-class engine lathe and tools for working in metals and wood, which will greatly increase its efficiency.

MUSEUM.

The modern museum is not a mere collection of rare curiosities, but is rather considered as a valuable adjunct to the work of instruction. This service the Museum of Albion College performs. Its specimens are daily brought to the laboratory and class-room for dissection and observation, the students thereby being able to study the fauna and flora of the distant portions of the earth.

Besides the mounted specimens displayed in the cases, the college keeps constantly on hand many hundreds of specimens of type forms preserved in alcohol, in order that when a given subject is reached every member of the class may be supplied with a study specimen. In this way the work of acquiring knowledge of a subject, such as Botany, Zoolgy or Mineralogy, does not consist in the mere acceptance on faith of the statements of the author, but it is the privilege of the student to challenge those statements by a practical appeal to the natural object.

Again, the Museum is for the purpose of entertaining and educating the general public. Many hundreds of people in the course of the year visit these rooms and go away with much information which could be procured in no other way.

As heretofore we are under obligations to our friends for the interest they are taking in the building up of this part of the appliances of the college.

During the year several large cases have been built and filled with interesting and valuable specimens. Among the most noticeable of these collections is one of about four hundred

specimens of native gold collected in California by Emery and Philetus Lewis of Liberty, Michigan. All of these specimens show gold present, some of them in large quantities.

Another large and valuable collection is that made by Chas. G. Maywood, a student of the College, in the mining region of the Upper Peninsula, consisting of ores of iron, copper and gold.

Prof. Chas. H. Gordon, now of Northwestern University, has presented the museum with a fine collection of quartz geodes from Iowa. Mr. J. J. Roberts, of Battle Creek, has placed on exhibition one of the finest collections of Indian relics in the State. He has also put at our disposal a very choice collection of coins of different countries, periods and denominations which greatly increases the display and enlarges the value of this department of the museum. Rev. I. R. A. Wightman has placed in the museum a large number of rare fossils and minerals, the result of many years of enthusiastic gathering.

The State Geologist, Dr. M. E. Wadsworth of Houghton, has sent to the museum a complete set named and labeled, of the minerals of the State, receipt of which is hereby thankfully acknowledged.

Another set of typical minerals has been donated by the Smithsonian Institution, thus placing us once more deeply in their debt.

Mr. W. H. McGinnis of Youngstown, Ohio, has presented the College with a fine collection of minerals and fossils.

Mr. L. J. Knapp, class of '84, now of Stevensville, Montana, continues to capture and send to us the type forms of animal life to be found on the Rocky Mountains, his latest gift being an unusually large specimen of the mountain goat. He also has in preparation for the Art Department a series of photographic views of mountain scenery.

Mrs. J. G. Blackman, of North Adams, has contributed valuable coins, fossils and curios.

The thanks of the College are also due to J. C. Eslow, E. G.

Rogers, Mrs. E. H. Brockway, Bruce Brockway, R. Elwood, and Dr. G. W. Stone for valuable gifts.

Quite a change and improvement in the department of foreign curios has been made during the year. Some gifts from China and Japan have been received. The large case 8x15 feetin size on the first floor of the museum has been set apart especially for curios from Mexico, India and China. Mats from Mexico cover the floor, a row of paper gods and strip of native cotton goods from India form respectively a frieze and dado. The College is indebted to Miss Lizzie Hewitt, of Tetela, and to Mrs. Laura Craver of Puebla, Mexico, for the purchase of an interesting collection illustrating customs and manners there. A number of clay figures show the common street merchants in their costumes selling mats, fruits, and other things. The water carrier, the musicians, the Indian woman making tortillas, and other occupations strange to American eyes.

Some beautifully etched and painted pieces of onyx, an onyx table-top, wearing apparel, vases, toys, pottery models, and utensils, form a part of this display.

The valuable and unique loan collection of Mrs. J. H. Gill of Pauri, India, has been placed here.

A large number of idols of marble and brass, the clothing worn by men and women in the Himalayas, carved sandals and leather slippers, ear, nose and toe rings with bracelets and anklets in variety somewhat exemplify the conditions of life there. Some carvings in ebony and other woods and upon talc are choice; two ancient musical instruments of the lute family, a leather shield, daggers, knives, and implements used in the hills are very curious, as is also a large bronze water jug to be carried on the head. Shells, models of things in common use, and some books are of interest.

A loan collection of curios from China is promised by an old student, and it is expected this department of the museum will grow equally with the others.

The college is put under obligations to Mr. J. H. Pilcher,

of Jackson, for a box of articles from China and India, of special historic value, some of them sustaining association with the royalty of those lands and belonging to a very early period.

The College is anxious to make collections in every direction, but we call special attention to two classes of objects in which many of our friends could easily furnish us specimens, namely, Indian and war relics. Cases have been provided specially for such objects.

MAPS AND CHARTS.

Of apparatus for illustrating the work in Language, Literature and History, we have probably as large a collection as any school in the United States. ***Both the Latin and Greek*** departments are provided with full sets of classical maps. The Greek department has abundant materials for the illustration of Greek Archæology, and a rarely complete set of charts for exhibiting in detail the topography of Ancient Athens. The head of this department is working out on an original plan a series of language charts which, when completed, will present to the eye a full outline of the leading facts of Greek Grammar.

The History department, where the "Layer Map" plan, (elsewhere described) has been introduced, has at its command about 180 maps, representing successive stages in territorial history. If every change which can be represented singly be counted, the total number of possible maps would aggregate about 800. In addition to the series formerly prepared, showing the development and break-up of the Roman Empire, the formation of the new nations up to 1843, A. D., the break-up of the Ottoman Empire, from 1699 to 1885, the development of Prussia to 1866, the growth and dissolution of the

Napoleonic Empire, and the unification of Italy; we have recently prepared a set of "layer maps" for the United States, showing every territorial change in its history from 1763 to 1876,—changes the number of which falls but little short of 100. As new maps are being constantly added, we hope to be able in a few years to exhibit every important territorial transfer appearing in the course of history.

The advantages of the device we employ are apparent. It is superior to the series of maps, because (1) it changes with history; (2) a more definite concept of the changed territory is obtained when it can be taken off and handled as a piece of cloth; (3) the student can be set to work out the changes for himself,—to build up or take to pieces the map; and (4) it is less expensive, involving but one or two full-sized maps. It is superior to the black-board scheme, because (1) it is clearer; (2) it is more accurate; (3) it is easier to reproduce, and so not too difficult for the student and the overworked teacher; and (4) it preserves both the original condition of things and the changed order, each of which can be reproduced in turn, and thus the exact nature and extent of the change can be clearly and definitely seen.

Incidentally the use of soft-wood back has suggested several little devices which we find quite helpful. For battles we use a bright red spear-head of stiff cloth fastened with sealing wax to the head of a needle. These, being removable, are placed on the map just where events call for them; can be made large enough to show across any room without permanently disfiguring the map; do not crowd regions like the Netherlands, where many battles have been fought, till the confusion is hopeless; and, finally, furnish, in putting them on, a useful exercise for the student. Similarly, we use a yellow star on a black circle for treaties of peace, and lines of colored braid to follow expeditions, such as Alexander's, or the crusades. Doubtless other expedients of the same nature will suggest themselves.

LIBRARY.

The number of books added to the Library during the past year, *aside from unbound volumes*, is 687, making the whole number now in the Library 8,050. Besides these there are something over 2,000 unbound volumes and pamphlets.

The nucleus of a ***Bibliographical Museum*** has been formed by placing in the Library a glass case for books especially notable on account of age, rareness, ownership, etc.

In the management of the Library great pains is taken to induce the students to use it as much as possible, since we hold that to train them in the use of books, the store-house from which all alike must draw, is one of the most important functions of the College. With this object in view ample indexes are provided; books much in demand are placed within the reach of all; and new books are placed in a revolving case in the reading room where their accessibility will tempt every one at least to look them over. The utilizing of new books is further secured by placing them in the hands of the teachers most interested, who frequently assign them to students to review before their classes, thus giving all an opportunity to learn the bibliography of the subject, and filling all with new zest for work in the several departments.

To facilitate such a use of the library, ***card indexes*** are prepared and placed in easy access to all students. First, ***a card index of authors***, alphabetically arranged. In this the author's name is the leading word upon the card, and below it, or on successive cards, are placed the titles of all books in the library of which he is the author. The number of the book is placed upon the card opposite the title. The student, knowing the author's name, is thus guided to the desired book.

Another drawer contains ***a title index***, or catalogue, of all the books in the library, on cards alphabetically arranged. In this the title of the book is the leading word upon the card, the author's name following. The advantage of cards, instead of a printed catalogue, is that it admits of continued accessions without destroying the alphabetical arrangement.

Then there is the ***subject index,*** in which the subject is the leading word upon the card, and all books treating upon that subject, even those in which it is only incidentally mentioned, are there referred to by name, number, and if it is only a sketch or article in a book of which that subject is not the title, the page also. A student, desiring to investigate any subject, is thus guided to all there is in books and pamphlets upon that subject in the library.

Another drawer contains the ***biographical index***, where the student is guided to the biography and biographical sketches of anyone of whom he wishes to learn.

Still another drawer contains an index of current events, where the important events of the day, as they transpire, are recorded on cards. If the student wishes to know when Mr. Emerson died, or when President Garfield was shot, or when any other important event occurred, he goes to this index.

Besides these the library is supplied with ***Poole's index*** of periodicals, in which all the leading periodicals of the day are indexed, up to 1832, supplemented by the Co-operative Index of Periodicals, published quarterly. By these, students are guided to what they desire to find in the bound volumes of periodicals. Thus there are marked out paths to guide both the faculty and the students to such information as they wish to obtain in the library.

It is customary for members of the faculty to ***assign to the students certain topics for research,*** or subjects to obtain information upon, and thus their acquaintance with books is greatly extended, and they are disciplined in the practice of research. Tables are placed in different parts of the library where such

students are permitted to sit and prosecute their investigations. The library is open during all school hours, and on Saturdays, and is free to all students.

The Pastors' Library, based on the Peter M. Emery foundation, is constantly growing from purchases of books specially adapted to the purpose of this collection. It is intended to supply the best publications in all the directions that ministers look, to secure preparation for the work of their profession.

Reading Room.—The reading room is provided with a two-fold end in view: to furnish wide range of general newspaper and magazine reading, and to supply advantages for special educational work. It contains the leading religious and secular papers of the country, with some from foreign lands, including French, German, Latin and Greek. It is supplied with the principal magazines of this and other countries. During the last year many new valuable publications have been placed on our list, so that the range of this class of educational appliances has been largely extended.

APPLIANCES IN SCHOOL OF ART.

Conservatory of Music.—The Conservatory of Music is supplied with all the instruments required for successful work. There are in the institution ***eleven pianos,*** eight of which are used for instruction purposes. One of these is kept in the chapel for use in concerts and on other occasions in which a piano is needed. This is an instrument of more than ordinary power. Each of the three literary societies has a valuable piano, which helps to make music an interesting part of the weekly exercises. Students in the Conservatory are able, to a large extent, to practice on college instruments. Aside from these the institution is able to supply students to an almost

unlimited extent with the use of pianos at private residences in immediate proximity to the college buildings.

The institution possesses ***two organs***, one of these with all the appointments of a two-manual pipe organ.

The college will derive much benefit from the large pipe organ placed in the new Methodist church.

The department possesses a Technicon for use of Piano students in disciplining the muscles of the hand.

The Orchestra, composed of about ***fifty players***, is supplied with all the variety of instruments employed for the production of orchestral music.

The Conservatory has a ***valuable musical library***, which is being enlarged as desirable publications make their appearance. It is also in receipt of the best musical papers and journals.

School of Painting.—This school occupies a suite of rooms in the North College building, both as working rooms and for art gallery. The gallery contains a large number of studies covering a great variety of subjects. There are also many very ***fine imported studies***—copies from celebrated painters—which represent the various schools of art. These afford the student a fine opportunity to study and compare the various methods of conducting art work. The department keeps on hand a large supply of easels of uniform pattern, with material, stands, etc., for the use of students. A ***complete set of models*** for drawing, consisting of cubes, cones, etc., are provided for use; also models for different parts of the human figure. The art room is supplied with a somewhat extensive ***collection of heads and busts*** of distinguished men of the past.

Complete provision has been recently made for study of ***Decorative Art.***

GENERAL STATEMENTS.

Closing Examinations.

1. All students must be present at examinations and the closing recitations of the term, or no credit will be given for the work pursued.

2. Students absenting themselves from the closing or examination work will not, unless such absence was caused by sickness or other unavoidable conditions, be allowed to take the omitted examinations until they occur in regular order with the next class.

3. All conditions must be removed within a year from the date of the examination, or else the student will be marked Not Passed, thus requiring that the work be taken over again in class.

4. Work marked ***incomplete*** must be completed within a year, if credit is to be allowed.

5. No credit will be granted students for work on which they are marked Not Passed, until they have satisfactorily pursued the same again in some regular class.

Attendance.

1. Persons coming to Albion for the purpose of entering any department of the College are subject to its government ***from the time of their arrival;*** and whenever a student has entered College he is under its jurisdiction until his connection is formally closed by graduation or otherwise.

2. Students who are ***not in their places*** at the opening of the term, if minors, must present written excuses from their parents or guardians for their delay; and if not minors, must give a satisfactory excuse for such delay.

3. ***Uninterrupted attendance*** upon college duties during term time is required. Under ordinary circumstances visiting friends or home is discouraged.

4. No student is permitted to leave town without the President's permission.

5. ***All delinquencies***, such as tardiness, deficieney, offenses against good order in the recitation rooms, are dealt with by the Professors of the Departments. Flagrant cases are reported to the President or Faculty.

6. ***Students*** who at the close of a term do not expect or desire to remain the following term *must apply for leave of absence or honorable dismission* from the Institution. Unless dismissed or excused they are ***subject to the regulations and government of the College.*** *Unexcused absence works forfeiture of privileges* heretofore gained by enrollment or matriculation.

RULES AND REGULATIONS.

Only such requirements of the college as relate to good order and wholesome discipline are here presented. Indeed the great body of college laws must be unwritten. They need not and cannot be put on the printed page. As to the prohibition of the different forms of vice, there need be no formal statement, as no reputable college would allow immorality.

The institution expects manliness on the part of the young men, and refined lady-like deportment on the part of the young women. While the special aim of each student is the acquisition of scholarship and the fullest culture of the mental powers, that education is incomplete in which character receives less attention than the intellectual faculties. But with high moral aims there should be that which is becoming and refined in social life. The relations of the young men and

young women are expected to be elevating, and no condition affords better opportunity for the exercise of social amenities than the daily commingling of young people in the midst of an atmosphere of learning and progressive scholarship. Students upon entering the institution soon come to understand what is the real standard of moral and social life, and the principles to be observed and cherished in order to secure the largest measure of good. Irregularities which betoken a coarse nature work a forfeit of college privileges.

SPECIAL PRIVILEGES.

Religious.—On each school day at 9 a. m. religious services are held in the College Chapel, which all the students are required to attend.

On Sunday morning they are required to attend public worship at such church as they or their parents or guardians may select, and each student is expected to be uniform in his attendance at the church of his choice.

Attendance upon the following is optional. On Thursday evening is held the general weekly prayer-meeting, which, though a voluntary service, is attended by a majority of students. On Tuesday evening there is a church class, composed of students, and at present is led by Professor S. D. Barr. At 9 a. m. on Sabbath there are meetings for the study of the Bible. In the afternoon there are students' gospel meetings.

Albion College is not a theological school; it is not its office to impart instruction distinctively on theological and ecclesiastical subjects. But believing in morality we must believe in religion. No institution of learning will have a healthy moral atmosphere which is not pervaded by a christian spirit. To guard young men from the vices so common in every community, there must be a distinct religious sentiment and a pos-

itive spiritual atmosphere from which immorality is shut out, and which serves as an inspiration to pure thoughts and a correct life. But while Albion College does not teach theology, it does teach God as the Creator of all things, as a personal providence to every human being, as the author of the Bible, and who in Christ, the Redeemer of the world, is ready to save everyone who in penitence and faith will come unto him for everlasting life. While the school is not sectarian, and does not interfere with the denominational preferences of any student, and while it does not aim to make educated ministers any more than educated lawyers or physicians or business men, it does hold that God has rights in every lecture-room, that he must not be shut out from any department of instruction, and that truth can have no foundation only as it rests finally on the being and creative power of God. The authorities of the college hold that character is more than scholarship, and to be perfect the character must be christian. The aim is to supply the world with educated christian men and women for all the professions, for all departments of legitimate business, and for all proper relations in life.

Societies.—There are three Literary Societies connected with the Institution: The *Erosophian Society*, *the Eclectic and Athenaedes Society;* and the *Philozetian Society*. The two former are college societies, the latter is connected with the preparatory school. Students in preparatory classes may join the *Philozetian Society* and remain in the same until they reach the Freshman Year. They are not at liberty to become members of either of the regular college societies before they complete the studies of the first three preparatory years.

The *Missionary Society* is organized for the promotion of the missionary spirit.

There are *two Christian Associations*—the Y. M. C. A. and the Y. W. C. A.

The *Ladies' Library Association* carries forward its work by the employment of eminent lecturers, the profits accruing

being devoted to the purchase of books for the library. In connection with a very superior course of lectures the past year, it cleared $500.

A college paper called the *Pleiad* is published by a society or stock company organized for that purpose.

The Literary Societies have fitted up *elegant apartments* in which to hold their weekly meetings.

No literary or other society can exist in connection with the Institution unless by permission granted after the Constitution and By-Laws of the same shall have been submitted to the Faculty for examination, and shall have received their approval. Whenever the workings of any society shall be deemed prejudicial to the interests of the Institution, such society will be dissolved.

The ***times and places*** of the meetings of societies will be subject to regulation by the Faculty; and all meetings, whether of regular societies, or of any other body of students, shall be open for the attendance of any member of the Faculty or of the Board of Trustees.

No society in the College may ***invite any lecturer to address them*** in public until the name of the proposed lecturer shall have been laid before the President, and he shall have given permission to extend the invitation.

EXPENSES IN THE VARIOUS DEPARTMENTS OF THE INSTITUTION.

Rates of Board.—The institution does not ***conduct a boarding hall,*** but the students are able to make arrangements for board at figures as moderate as college boarding halls ever charge, and, as a rule, obtain ***board of a better quality*** than is ordinarily procured on the old plan. ***Table board*** in private families usually costs from $2.25 to $2.50 a week. A large number of

students organize ***boarding clubs,*** enabling them to reduce the rate to $2 or $1.75 a week. This is now quite a popular method of providing for board. There are other students who ***board themselves,*** expending perhaps one-half the cost of club board, and some even less. Furnished rooms can be rented usually at ***fifty*** or ***seventy-five cents a week*** for each student.

The following is a schedule of charges made by the Institution. It will be seen that for ***literary work*** there is ***no tuition.***

PREPARATORY SCHOOL AND ACADEMIC DEPARTMENT.

Tuition	Free
Incidental fee, per term	$ 5 00

COLLEGE.

Matriculation fee, paid but once	$5 00
Tuition	Free
Incidental fee, per term	5 00
Graduation fee	5 00
Students in chemistry deposit at the opening of the term, to cover cost of material used	4 00

If balance to their credit at the end of term, it is refunded. Students using the microscope pay a small rent.

CONSERVATORY OF MUSIC.

Matriculation	Free
Instruction in Chorus Class	Free
Instruction in rudiments of vocal music, per term	$ 1 00
Incidental fee, per term	2 50
Tuition, in class of three—on piano or organ	12 00
Tuition, in class of two—on piano or organ	15 00

Tuition, private lessons—on piano or organ	$20 00
Tuition in Harmony—once a week.....	4 00
Voice culture—class of two.....	5 00
Voice culture—private lessons	8 00
Voice culture—private lessons—half an hour.....	5 00
Instruction on violin, cello, etc.....	9 00
Instruction on violin, cello, etc.—half an hour.... ...	5 00
Instruction on cornet, clarionet, flute, guitar, etc.....	6 00
Membership in the Orchestra.....	Free
Membership in the Band.....	Free
Use of piano or organ—per hour, for term.....	2 00
Graduating Diploma.....	3 00

When literary studies are taken in connection with music, the same incidental fee is charged as in the college.

It will be seen that ***class rates are much cheaper than private lessons,*** and until the student reaches the graduation year the instruction thus received is as profitable as by private lessons.

To students receiving instruction on the piano or organ who have not completed the Second Grade, there is a reduction of 25 per cent on the above rates.

SCHOOL OF PAINTING.

Incidental fee, per term.....$	2 50
Tuition in oil painting, water color, India ink, etc. per term.....	20 00
Single lessons.....	50
China painting or other purely decorative work—single lessons.....	60

☞ ***In no case*** does the incidental fee exceed $5.00 per term, though the student may be pursuing ***studies in several departments*** at the same time.

It will also be seen that ***no tuition*** is charged for instruction in literary studies, tuition being required only for instruction in music, painting, commercial studies or elocution.

The matriculation and graduating fees are only one-half as much as charged by many institutions.

It will also be perceived that the charges for instruction in music depend on the class to which the student belongs, and the amount of instruction received. The schedule of prices ranges all the way from $4 to $20 or $30 a term. It is at the ***option of the student.***

COMMERCIAL DEPARTMENT, SHORTHAND, ETC.

Tuition, full course, including all studies, except Typewriting and Shorthand:

First term, in advance	$20 00
Second term, in advance	17 50
Third term, in advance	12 50

Besides the regular course there will be classes to accommodate those from other departments who wish to take special work in this department, as follows:

Book-keeping, per term, five hours a week	$ 5 00
Book-keeping, per term, three hours a week	4 00
Penmanship, per term, five hours a week	3 00
Penmanship, per term three hours a week	2 50
Commercial Arithmetic, five hours a week	2 50
Commercial Law, three hours a week	2 00
Shorthand and Typewriting, per term	15 00

ELOCUTION.

Tuition, class and private.

Class—Per term	4 00
Private—Per term, ten weeks course	12 00
Incidentals	Free

Arrangements for taking more lessons at the same rates can be made at the beginning of each term.

TO THE READER.

We publish the Year Book as a means of communication with that portion of the public interested in the great work of education, and also, as an aid to the Faculty and students in the movements of the College. We herein lay before the people our special educational system, including courses of study, methods of instruction, range, character and forms of work, and appliances employed. We ask a careful scrutiny of all the departments and interests of the institution. The public understand that this is a christian college—not that the students are subjected to denominational tests. We have young people from all the churches and from homes outside the churches. The majority of the students are professed christians and consequently there is a religious and moral atmosphere. But the college is under the auspices of the church, and its teachers are christian men and women. In the instructions given there is a recognition of God and an expressed faith in christianity. The bible we hold to be a supernatural revelation, the Sabbath a holy day, and the ministry a divinely ordained agency to press the claims of the gospel upon the attention of the people. With us God is the foundation of nature, the ultimate of science, the centre and final principle of truth.

We direct the attention of young people desiring to enter the institution, and who have pursued their studies in any of the high schools, to pages 18–22. A careful reading of these pages will be the means of gaining valuable information as to means of entrance into the institution. We ask the principals and superintendents of graded schools also, to read these pages.

All students will be sure to examine the tabulated courses

printed on pages 29, 30 and 33. The analysis of and notes on these courses will repay perusal.

The detailed outline of work, as presented on pages 37–47, gives the student an insight into the character, range and method of study and instruction. We call special attention to this.

On pages 47 and 48 the plan of our Science Association is briefly given. This has just been inaugurated and a considerable portion of the advanced work of the College of Liberal Arts will be done through this organization.

It is apparent, on reading the Year Book, that the institution is rapidly adding to its appliances. The Library and Museum are both growing from year to year.

The Conservatory of Music, it will be seen, is very prosperous, and instruction is given in most of the lines in which the public is interested. We ask the reader to scan the provisions we have made for meeting the demands of the highest musical taste.

The School of Painting has two departments, general drawing and painting, and decorative painting. A high class of work is done and new material added every year. Look at the courses of study and examine the facilities offered.

We ask those who are interested in commercial studies to carefully look over the methods of our Business Department. Being connected with the college it enjoys special advantages and meets a very important want of the Institution.

The School of Oratory has had special prosperity this year, introducing some new features and gaining in influence. Our plan is to provide the most thorough and rational system of instruction, both for the benefit of the entire college and the general public.

We trust that every body will read the discussions printed in the latter part of this volume. These problems are of great importance, and we hope to be able each year to supply those who are interested in our progressive civilization with a glance at the educational movements and theories of the day.

"THE TRUTH SHALL MAKE YOU FREE."

To the Students of Albion College:

Deeply impressed with the thought that the value to you of truth, in its broad and deep sense, is incalculable, I indite the following exposition of the words which appear above. Truth, in its fullest content, we may not be able to grasp, but it is well to look at its nature and consider its office.

To be bound in chains is a grievous affliction; to consent to wear chains when we can snap them asunder is to lead a life that is both unmanly and disgraceful. The great problem of all ages is the problem of freedom. We give pity to the slave in unstinted measure. The wrongs of despotism stir our hearts to the very centre. We sympathize with all men in their struggles to throw off the yoke of oppression. We dream of the day when freedom shall triumph in every land, on both continents and the islands of the sea.

To sell ourselves into slavery, the slavery of passion, of appetite, of lust, of any earthly tyrant, is wickedly to part with the most priceless heritage which the soul of man can surrender. Pinion the wings of the eagle and his powers are paralyzed, he is no longer a bird of triumph. The human body is bound to the earth, matter cannot break away from the forces which hold it downward. The spirit of man, however, has wings, it does or can spurn the bondage to which flesh is heir; its home was meant to be the wide universe of being. Bind its wings by any form of slavery and the purpose of its exalted nature is set aside. The saddest wail that comes up from any point of this great world is the moan of the enslaved soul.

The Bible proclaims the most precious message ever uttered

to the race when it says to us, in our bondage, "The truth shall make you free." How shall I become the freeman which I was intended to be? The answer comes back. "The truth shall make you free."

This age, more than any preceding, is characterizcd by a spirit of inquiry. To every problem new questions are put. All science is reviewed, all philosophy is thrown into a hotter crucible than in the past. The foundations of government are all dug up for further inspection. The question of man's relations to this world and the world to come are opened for further inquiry. Some portions of this is from mere curiosity; in other cases it grows out of a sad consciousness of lack of knowledge. But this is indisputable, the world of the known is a very small world; the world of the unknown stretches off into limitless space and limitless being.

Truth may be divided into two classes: 1. The great systems of being, comprising what we call creation, both material and spiritual. This is God's handiwork. To study these systems is to study God's plans, to get at His thought. It is to seek to find that which is the product of infinite intelligence, to determine God's ideal of a universe. In a broad sense a fact is not truth, it is a truth only as it is apprehended in its relations to other facts or realities as a constituent part of a system. A system is a body of related and interdependent realities existing as a unit. Nature is a system, all its parts make up a vast whole, a completed complex unit, each part dependent on all the other parts, and with the same finishing out the whole. There is no study more noble than the investigation of this mighty machine which infinite power has produced. We are not surprised that there are so many scientists, rather that science is not the special and enthusiastic employment of all men. To track the stars in their courses, to measure their orbits, to determine the laws of their movements, to find the forces which hold all these worlds in equilibrium, to resolve the universal

system of nature into the minor systems of which it is composed and by analysis descend to the minute systemic factors of this grand complexity of being, and then ascend again, combining all into one all-comprising and harmonious whole what can be grander than this? The problem is much more than the determination of the number of worlds which float or move in space; much more than the settlement of the question of the size of each star, its distance from other worlds; it is an unfolding of the relations which make each world as it is, each minor system what it is, the relations of all parts to each other so that the mighty whole stands forth and is perceived to be the expression of the grand thought of the one infinite mind. This is the question. What is this universe, how constituted, how managed, how cemented into unbroken unity? What is the relation of the earth to the balance of the solar system, to all other systems; what is your relation, my relation, to all worlds? It is the work of science to put each fraction of the whole into its exact place in the whole, thus building it all up so that each portion shall be known by its fitting into and agreement with the plan of the whole. This is scientific truth, every part seen in its relation to the universal plan which underlies it all.

As we comprehend this realm of truth, we rise towards a mastery over nature. We hold as it were the winds in our hands. We walk through the various chambers where the great energies of matter are at work, we intelligently scan the revolving of the wheels of creation, nothing is hidden from our view, hence nothing can surprise us, nothing take us unawares, we are not slaves, we occupy a throne of intellectual empire.

2. The other great division of truth is the spiritual, that which bears special relations to the heart, which enters the moral life and transforms our being, which makes character, character that is pure and unselfish, reinvesting us with the divine image. This is truth that saves, saves from sin, saves

from corruption, saves from death. This truth is more than knowledge, it is life, power that puts satan to flight, that shatters his kingdom, that makes us children of God. The result of the action of spiritual truth on our being is that passions dwindle, lust fades away, earthly ambitions have less power, money-making presents less charms, fame is less intoxicating, earth is dimmer, heaven is brighter, and the fields of paradise shine with an ever brightening hue. This is the freedom the gospel brings to us. In science we know what God is doing; in the truths of a spiritual life we talk with Him, feel the throbbing of His heart, become like Him, so that we incline to live as He lives.

Education is power; ignorance is weakness. Education extends the range of movements of mind; ignorance is prison walls, shutting in the life; education is freedom; ignorance is slavery. The trained and skilled mechanic is at home in the workshop, he is a king there, nothing hems in his powers; the untaught apprentice must wait till some master spirit guides his movements. As you touch the keys of the piano for the first time you are powerless to awaken a single melodious strain; but as a Bethoven runs his fingers over the same keys there spring into existence the very symphonies of heaven. In all vocations of life, every interest of our being, efficiency, success, achievements, all grow out of knowledge. The liberation of the soul from mental thralldom is a consequence of the acquisition of truth; the liberation of the soul from spiritual bondage is the result of the work of spiritual truth on the life.

It is often said that a person is no better for being learned, that he does not thereby possess a more perfect character. There are several propositions we may here lay down:

(1.) Truth, even if it be secular, is a factor of the best manhood. Illiteracy is dangerous, not only because the uneducated are easily deceived and become the tools of designing men, but because there is less moral firmness of being, the fibers of moral life are less compact for the resistance of evil.

The problem which more than any other in this country is regarded as a living question with immeasurable possibilities is the practical removal of illiteracy. The conviction is universal that the education of the whole people would give vigor to the government, remove a multitude of wrongs, and elevate the general manhood of the public to a much higher plane. Among the illiterate is found the most abject poverty, the largest percentage of criminals, and the greatest number of vicious men and women. These classes are the hotbeds of the worst and most dangerous evils of society. Universal education means universal improvement, financially, morally and religiously—a more perfect and manlier race.

(2.) The life of the mind takes on the qualities of the objects which employ its thoughts. If low and grovelling, the life sinks to the same level; if false, the mind becomes insincere; but if truth be the food of the soul, there is a symmetrical growth into perfect manhood, into a life that is grand because working in harmony with that which is an outcome from and a reflection of God's nature. Even secular education unless there be a distortion of truth is, as far as it goes, healthful. But the education that takes God within its scope, with his supremacy, his Godhead, his Fatherhood, the majesty of his being, with all this majesty employed in our protection and guidance and deliverance from evil—an infinite wealth of love lavished upon us, such a theme constantly in our thoughts is omnipotent in its elevating and saving power.

(3.) But the education that brings a sense of responsibility with it, that stirs the conscience and leads us to feel how awful sin is, and how weighty are the claims of law and truth, humanity and God, which brings us to the point of meeting the obligations growing out of our relations to God and men, such truth thus taking hold of us works out the highest life of manhood and womanhood.

What is truth? It is harmony, it is sincerity, it is law, it is order, it is fidelity to the universal, it is the "identity of the

rational and the real," it is God's thought. It is more than reality, it is the agreement of reality with the universal. It therefore involves unity, completeness, wholeness. Hence in the loftiest, broadest sense it is holiness.

On the philosophical side truth is complete only as it distinctly unfolds purpose. Any machine is an enigma if you do not understand the final cause involved, the end it was manufactured to work out. Hence creation taken by itself does not give us the completeness of scientific and philosophic truth, it must be known in its relation to the Creator. The reason for nothing in the universe can be found without God. All nature must be studied and viewed as having its roots in God, and made to be for a divine purpose. Therefore, truth is the thinking over God's thoughts, finding his plans, intelligently surveying his movements.

CANDIDATES FOR GRADUATION.

DEGREE OF A. M.

Wada, Seiki
Webster, Arthur F

DEGREE OF A. B.

Armstrong, Edward Ames
Campbell, Jennie Evelyn
Lovejoy, Owen Reed
Welch, Mary Draper
Wright, George Whitefield

DEGREE OF Ph. B.

Abbott, Lewis Fiske
Berkaw, George R.
Ishizaka, Masanobu
Leonard, Otis Allen
Mattice, Asa Edson
Pierce, Dollie Grace
Rork, Lydia Mary
Warren, Homer Gilman
Weyant, Fred Nelson

DEGREE OF B. S.

Bartley, James Hutchinson
Rogers, Ernest Grant

DEGREE OF B. L.

Wright, Elizabeth May
Yamaka, Hatanoshin

DEGREE OF B. P.

Newell, George Glenn

CONSERVATORY OF MUSIC—DIPLOMA.

PIANO.

Billinghurst, Neva M.
Eggleston, Nina J.
Jackson, Lulu Ethel
Keller, Lulu Dell
Kiefer, Myrtle E.
Koons, Mary
Maywood, Charles Gay
Perkey, Carrie Bell
Perrine, May Lewis
Travis, Cora Engle
Watson, Myrtie Adelline

VIOLIN.

Eggleston, Kittie Margaret
Kern, Ota Olean
Munro, Louise B.

SCHOOL OF PAINTING—DIPLOMA.

McHattie, Adelade
Rogers, Mary C.

COMMERCIAL DEPARTMENT—DIPLOMA.

BUSINESS COURSE.

Bentley, Gertrude E.
Carnes, Ernest H.
Dearing, James P.
Elliott, Alton D.
Gregg, John W.
Gilbert, Myron B.
Kellogg, Fay K.
Hoare, Anna Eveline
King, Fred Glen
Knowles, Jay D.
King, Martin H.
Rickard, Lugrand G.
Selway, Ernest O.

SHORTHAND COURSE.

Allen, Frank Erastus
Ball, Lettie O.
Ball, Minnie B.
Bentley, Gertrude Elizabeth
Brezette, Edith M.
Cannon, Gertrude Beatrice
Carnes, Ernest H.
Coffin, Edward I.
Gulick, Lillian
Howe, Gilbert Dalton
James, William Frank
Lovejoy, Hattie Adele
Leeman, Emma
Mack, Kate Elizabeth
Oldman, Alta E.

STUDENTS IN COLLEGE OF LIBERAL ARTS.

GRADUATES STUDYING IN ABSENTIA FOR MASTER'S DEGREE.

NAME.	RESIDENCE.
Barnhart, Alice H.	Mason
Downing, Elliott R.	Fort Payn, Ala.
Reed, Milton O.	Deer Lodge, Mont.
Wada, Seiki	Tokyo, Japan.
Webster, Arthur F.	Baltimore, Md.

SENIORS.

NAME.	COURSE.	RESIDENCE.
Abbott, Lewis F.	Lat Sc	Galesburg
Armstrong, Edward A	Cl	Detroit
Bartley, James H.	Sc	Grand Rapids
Berkaw, George R.	Lat Sc	Parma
Campbell, Jennie E.	Cl	South Haven
Ishizaka, Masanobu	Lat Sc	Tokyo, Japan
Laberteaux, Frank	Sc	Albion
Leonard, Otis A.	Lat Sc	Albion
Lovejoy, Owen R.	Cl	Albion
Mattice, Asa E.	Lat Sc	Spring Arbor
Pierce, Dollie G.	Lat Sc	Utica
Rogers, Ernest G.	Sc	Medina
Rork, Lydia M.	Lat Sc	Agnew
Warren, Homer G.	Lat Sc	Flint
Welch, Mary D.	Cl	Schoolcraft
Weyant, Fred N.	Lat Sc	Danby
Wright, George W.	Cl	May
Wright, Lizzie M.	Let.	May
Yamaka, Hatanoshin	Let	Nagayo, Japan

Cl.—Classical. Lat. Sc.—Latin Scientific Sc.—Scientific. Let.—Letters.

JUNIORS.

NAME.	COURSE.	RESIDENCE.
Allen, Frank E.	Cl	Albion
Anderson, Louis W.	Sc	Albion
Barnhart, M. Amanda	Cl	Mason
Burnham, Smith	Lat Sc	Climax
Caster, Ella S.	Lat Sc	West Bay City
Draper, Burke	Cl	Chicago, Ill.
Godfrey, Irving J.	Lat Sc	Parma
Goss, Etta	Let	Otsego
Griffin, Stanley C.	Cl	Albion
Inamoto, Otto O.	Cl	Hakodate, Japan
Kulp, Essie R.	Cl	Battle Creek
Landon, Arthur L.	Lat Sc	Springport
Loud, Edward B.	Cl	Albion
Majima, Otohiko	Sc	Kanda, Tokyo, Jap.
Palmatier, Charles H	Cl	Bonfield
Parmeter, Rolland L	Sc	Albion
Robinson, Irvin E.	Cl	Lansing
Sharer, Charles H.	Sc	Cedar Springs
Staley, Fannie J.	Cl	Grayling
Staley, J. Wilson	Cl	Grayling
Wilder, Allen J.	Cl	Tekonsha

SOPHOMORES.

NAME.	COURSE.	RESIDENCE.
Agard, Emma G.	Lat Sc	Litchfield
Armstrong, Jennie M.	Cl	Kalamazoo
Arnold, John F.	Cl	Albion
Arnold, Henry B.	Cl	Marshall
Barrett, Bertha	Let	Niles
Billinghurst, Neva M.	Let	Muskegon
Cutler, Ira E.	Sc	Putnam, Conn.
Dodds, Frank E.	Cl	Ionia
Doolittle, Alice L.	Let	Albion
Elder, Frances E.	Cl	Kalamazoo
Engle, Wilbur D.	Cl	Petoskey
Fillio, Ulysses H.	Cl	Albion
Ford, R. Clyde	Lat Sc	Litchfield
Graves, James C.	Sc	Albion
Hoffman, John W.	Cl	Rodney, Miss.
Hopkins, Mima	Cl	Owosso
Jacobs, Charles S.	Lat Sc	Albion
Lampman, Walter A.	Lat Sc	Hastings
Marshall, John J.	Lat Sc	Aurelius
McDonald, Ray G.	Lat Sc	Flint
Miller, Roy N.	Lat Sc	Mason
Munro, Louise B.	Let	Bay City
Pierce, J. Frank S.	Cl	Utica
Schultz, Samuel	Lat Sc	Lansing
Simmons, Will H.	Cl	Marshall
Smith, Dollie E.	Let	Eaton Rapids
Warren, Oscar B.	Cl	St. Joseph
Welch, John W.	Cl	Schoolcraft
Wooton, Ralph	Cl	Hastings

FRESHMEN.

NAME.	COURSE.	RESIDENCE.
Allen, Clarence E.	Cl	Detroit
Allen, Martha E.	Let	Pontiac
Allen, Nettie B.	Lat Sc	Albion
Ball, Rosa	Sc	Albion
Barber, Rena S.	Let	Quincy
Beddow, Ira A.	Lat Sc	Detroit
Birdsey, Corbin P.	Cl	St. Joseph
Blake, Frank A.	Lat Sc	Flint
Brockway, Martha A.	Let	Albion
Bruce, Lottie E.	Let	Albion
Cannon, Gertrude B.	Let	Vicksburg
Carr, Bert M.	Lat Sc	Cedar Springs
Clemo, Thomas W.	Cl	Birmingham
Cogshall, Grace A.	Cl	Kalamazoo
Conklin, Alice I.	Cl	Dowagiac
Cook, Newell	Sc	Hanover
Crampton, Burton A.	Cl	Lapeer
Cushman, Herbert C.	Lat Sc	Three Rivers
Davids, Ernest B.	Cl	Danby
Dewey, Grace E.	Cl	Concord
Dunning, E. Clarence	Cl	Albion
Fenn, Charles H.	Cl	East Tawas
Ford, Selden B.	Cl	Walworth, N. C.
Graves, Agnes F.	Lat Sc	Albion
Heys, Mabel A.	Lat Sc	Albion
Howard, Walton W.	Lat Sc	Litchfield
Hull, Sidney	Sc	Albion
Hunt, May B.	Cl	Albion
Kennedy, Iola B.	Lat Sc	Benton Harbor
Kerr, Neil M.	Cl	Petrolea, Ont.
Kirk, Lillian E.	Let	Albion
Ludlum, Headly O.	Cl	Ovid
Mains, Wesley H.	Let	Spring Arbor

Marsh, Kate M.	Cl	Albion
Mays, Hattie B	Lat Sc	Albion
Mays, Vernon G.	Lat Sc	Albion
Mealley, John E.	Sc	Detroit
Moors, Myrtie D.	Cl	Greenville
Moulton, Forrest R.	Cl	Le Roy
Mulholland, Clarence M.	Lat Sc	Au Sable
Newman, Ralph M.	Cl	Jackson
Niles, Martha E.	Lat Sc	Flushing
Osborn, Frank I.	Let	Albion
Osborn, Helen E.	Lat Sc	Flint
Pealer, Mary A.	Sc	Three Rivers
Perkins, Amelia	Let	Norway
Perkins, Mary	Let	Norway
Robinson, Sibyl G.	Let	Albion;
Roether, William C.	Sc	Albion
Rood, Clement E.	Cl	North Adams
Ryan, Edward B.	Sc	Bay City
Shearer, Delia M.	Let	Jackson
Schultz, Arthur F.	Lat Sc	Lansing
Sheldon, George F.	Cl	Albion
Siddall, Addie	Cl	Plainwell
Simmons, Edna M.	Lat Sc	Albion
Skinner, Carrie S.	Lat Sc	Marshall
Sloate, Ella M.	Cl	Albion
Smith, Charles E.	Cl	North Adams
Smith, L. Clare	Let	Albion
Smith, Mabel E.	Let	Albion
Snook, William C.	Lat Sc	Mason
Spence, William H.	Cl	Detroit
Thrasher, Effie E.	Sc	Albion
Urch, Mary E. G.	Let	Clarkston
Washburn, F. Belle	Lat Sc	Saginaw
Whalen, Grace A.	Lat Sc	Albion
Wright, Warren M.	Sc	Ishpeming

STUDENTS IN THE PREPARATORY SCHOOL.

FOURTH YEAR.

NAME.	COURSE.	RESIDENCE.
Benton, George O.	Sc	Royal Oak
Clancy, Allora M.	Cl	Albion
Clancy, Marshall G.	Cl	Albion
Coffin, Eugene A.	Cl	Albion
Deal, Clarence E.	Cl	Kalamazoo
Dickey, Lucinda	Cl	Burlington
Ferguson, Teenie S.	Cl	Sherman
Gibbs, Henry L.	Cl	Mayfield
Grimes, A. Curtis	Lat Sc	Vermontville
Hamilton, Amanda J.	Lat Sc	East Tawas
Howard, Will A.	Sc	Tekonsha
James, Frank W.	Let	Hancock
Maywood, A. Ames	Cl	Menominee
Morehouse, Carl W.	Lat Sc	Albion
Mowry, John	Cl	Sherwood
Nitteraurer, William E.	Sc	Ontonagon
Pooley, William J.	Cl	Scales Mound, Ill.
Potter, Milton C.	Cl	Mancelona
Ravn, Anton H.	Sc	Oscoda
Rice, William F.	Sc	Los Angeles, Cal.
Riedsma, Bert M.	Sc	Holland
Robson, John D.	Sc	Ovid
Roberts, John J.	Sc	Battle Creek
Simmons, S. Belding	Sc	Marshall
Smith, Hattie B.	Lat Sc	Springport

Snell, Tom C.	Sc	Albion
Swarthout, Lloyd	Let	Ovid
Way, Roy B.	Lat Sc	Elsie

THIRD YEAR.

NAME.	COURSE.	RESIDENCE.
Austin, Mary H.	Lat Sc	Rice Creek
Barclay, Linda C.	Let	Rice Creek
Brown, Gertrude M.	Let	Albion
Canfield, Guy M.	Cl	Detroit
Carter, William R.	Lat Sc	Fulton
Clark, Harlow G.	Let	Vernon
Clarke, Kittie A.	Lat Sc	Mayville
Dickie, Clarissa	Let	Albion
Elder, Mary E.	Lat Sc	Kalamazoo
Exner, William A.	Cl	Holt
Gardner, Theo. M.	Lat Sc	Albion
Goodyear, DeMont	Lat Sc	Swartz Creek
Grantham, Alexander W.	Cl	Cainsville, Ont.
Gulick, Claire W.	Lat Sc	Albion
Hicks, Fred G.	Let	Morley
Kirk, June E.	Let	Albion
McCallum, George P.	Let	Piper
Merrill, Charles M.	Cl	Big Rapids
Mount, John L.	Lat Sc	Parma
Parmeter, Vieva S.	Lat Sc	Gaylord
Perrine, Roy E.	Sc	Albion
Popoff, Minco D.	Lat Sc	Sistof, Bulgaria
Simmons, Arthur W.	Lat Sc	Duplain
Starks, Blanche	Lat Sc	Rice Creek
Washington, Isaiah,	Cl	Lansing
Wightman, Richard R.	Cl	Albion

SECOND YEAR.

NAME.	COURSE.	RESIDENCE.
Bailey, Hattie M.	Lat Sc	Comstock
Bradner, Edward J.	Cl	St. Johns

Brockway, P. Bruce	Lat Sc	Albion
Champion, H. Louise	Let	Lansing
Church, Mary E.	Cl	Albion
Church, Hamilton H.	Sc	Albion
Clancy, Bennett A.	Cl	Albion
Clancy, M. Addie	Sc	Albion
Coykendall, Minnie M.	Cl	Albion
Davis, Helen A.	Cl	Albion
Dunning, Phena M.	Lat Sc	Albion
Finch, George E.	Lat Sc	Jackson
Frary, Burdette S.	Sc	Flint
Hempstead, Fred H.	Sc	Flint
Hodgkins, May J.	Lat Sc	Albion
Hutchins, Myrtle I.	Lat Sc	Royal Oak
Jones, Frank C.	Lat Sc	Mosherville
Jordan, Grace D.	Lat Sc	Albion
Joy, M. Grace	Lat Sc	Springport
Kyes, David H.	Cl	Athens
Marsh, Ernest M.	Sc	Albion
McCrimmon, William R.	Lat Sc	Luther
McDonald, James D.	Cl	Eckford
Nowlin, Herbert C.	Sc	Albion
Robinson, William M.	Lat Sc	Eckford
Scattergood, Otis O.	Sc	Dowagiac
Selway, Blanche	Let	Dillon, Mont
Shipp, Frank G.	Lat Sc	Marshall
Snell, Daisy H.	Lat Sc	Albion
Temple, Clara A.	Let	Ridgeway

FIRST YEAR.

NAME.	COURSE.	RESIDENCE.
Banks, Walter G.	Cl	Albion
Besancon, Charles F.	Cl	Detroit
Billinghurst, Allen D.	Sc	Rice Creek
Caleb, Elizabeth E.	Lat Sc	Pontiac
Colman, William H.	Sc	La Crosse, Wis.

Eaton, Rodney	Lat Sc	Flint
Foster, Julia C.	Lat Sc	LaPorte, Ind
Gill, Francis H.	Cl	Pauri, India
Gill, B. Ensign	Cl	Pauri, India
Haggerty, Maude	Let	Chicago, Ill
Nilsson, John W.	Lat Sc	Liberty
Selway, Delos D.	Let	Dillon, Mont
Smith, Claudia	Let	Gaylord
Verran, Esther K.	Let	Republic

STUDENTS IN DEPARTMENT OF ORATORY.

NAME.	RESIDENCE.
Allen, Thomas	Albion
Annis, Rena	Albion
Armstrong, Fred	Stockbridge
Beal, Harold M.	Albion
Beddow, I. A.	Detroit
Berkaw. G. R.	Parma
Bruce, Lottie	Albion
Bruce, Bessie	Albion
Bullen, Ada	North Aurelius
Bunday, Blanche	Albion
Colman, W. H.	LaCrosse, Wis.
Conklin, Alice I.	Dowagiac
Cook, Newell	Hanover
Cushman, Herbert	Three Rivers
Dewey, Grace	Concord
Dopp, Della	Reading
Godding, Fred	Albion
Goodyear, D. M.	Swartz Creek

Gunnison, Gardie	Albion
Hillman, Charles	Davisburg
Hiscock, Chas. O.	Ridgeway
Holmes, Clyde	Grand Rapids
Hutchins, Myrtie	Royal Oak
Jacobs, Chas.	Albion
James, Frank	Hancock
Kenyon, Luther B.	Lake View
Mains, Wesley	Spring Arbor
Marshall, John J.	Aurelius
Majima, Otohiko	Tokyo, Japan.
McDonald, James	Bickford
Meally, John E.	Detroit
Newell, G. G.	Grand Rapids
Nowlin, Herbert	Albion
Parmeter, Vieva	Gaylord
Pitts, Dora	Colon
Pealer, Mary	Three Rivers
Perkins, Mary	Norway
Pooly, Wm. J.	Scales Mound Ill.
Robinson, Sibyl	Albion
Root, Bert	Mason
Rowley, Carrie M.	Albion
Rusch, Alfred J.	Rangoon, India
Scattergood, Otis O.	Dowagiac
Smith, Hattie B.	Springport
Snook, W. C.	Mason
Steven, Adelle	Albion
Shearer, Delia M.	Jackson
Stevens, Ada	Devereux
Temple, Clara	Ridgeway
Warren, Minnie	Howell
Wightman, R. R.	Albion
Welch, John W.	Schoolcracft
White, Anna	Springville

PUPLIS IN ACADEMIC DEPARTMENT.

NAME.	RESIDENCE.
Adams, Ruell	Muskegon
Anderson, Clinton H.	Albion
Armstrong, Fred A.	Stockbridge
Armstrong, Judson	Stockbridge
Bradley, Mary P.	Albion
Bullen, Ada M.	North Aurelius
Bullen, Amy V.	North Aurelius
Chapman, Ernest L.	Fowlerville
Church, Chandler M.	Albion
Cole, Edith	East Jordan
Cotton, Ollie	Albion
Coultes, Charles H.	Grand Rapids
Cudlipp, John H.	Calumet
Dopp, Della	Reading
Edmunds, Nellie M.	Banfield
Elliott, James F.	Albion
Fiske, E. Belle	Albion
Galliver, William R.	Saginaw
Garnsey, Augusta C.	Mayville
Geisman, Lillian	Manistee
Gerish, Albert E.	Muskegon
Green, Eva E.	Albion
Harris, Nellie	Calcutta, India
Hillman, Gilbert C.	Davisburg

Hillman, Olive L.	Quincy
Hiscock, Charles O.	Ridgeway
Holmes, Clyde J.	Grand Rapids
Horton, Carlton	Albion
Horton, Robert	Albion
Hubbard, Fred J.	Albion
Hungerford, Hattie E.	Albion
Kenyon, Luther B.	Lakeview
King, Fred G.	Litchfield
Leeman, Emma	Chelsea
Laity, Thomas	Iron Mountain
Mason, Myrtle M.	Sonoma
Matthews, Ada O.	Albion
Maynard, Willis E.	Marshall
McLean, Norman E.	Flint
McWethey, Frank E.	Rice Creek
Nowlin, Herbert O.	Albion
Palmer, Helen F.	Colon
Pearce, Elbert J.	Ishpeming
Pitts, Dora	Colon
Pray, Bertha A.	Dowagiac
Rafter, Sol. M.	Albion
Robart, Eliza	Bloomingdale
Roode, Catherine	Albion
Root, Clarence B.	Mason
Rowe, Henry L.	Sunfield
Rowley, Carrie E.	Albion
Rush, Alfred J.	Rangoon, India
Saunders, Luella M.	Eckford
Saunders, Riley E.	Eckford
Scattergood, Otis O.	Dowagia
Snell, Joseph W.	Albion
Starks, Anabel	Rice Creek
Stevens, Arthur L.	North Adams
Strang, Daniel J.	Adrian

Strickland, Clarence W.	Eaton Kapids
Thompson, Myra B.	Albion
Urch, W. H. B.	Jackson
Welch, James L.	Walled Lake
Whitcomb, Will H.	Flushing
White, James O.	West Bay City
Wightman, Renafrew A.	Albion. [Ont
Wilson, Arthur L.	Townsend Centre
Wilson, John W.	Liberty
Wiselogel, Ethel,	Pulaski

STUDENTS IN CONSERVATORY OF MUSIC.

PIANO.

POST GRADUATES.

NAME.	RESIDENCE.
Andrews, Lulu	Albion
Bolster, Carrie M.	Albion
Kirk, Lillian E.	Albion

GRADE VII.

Billinghurst, Neva M.	Muskegon
Eggleston, Nina J.	Marshall
Jackson, Lulu Ethel	Albion
Keller, Lulu Dell	Albion
Koons, Mary	White Oak
Kiefer, Myrtie E.	Homer
Maywood, Chas. G.	Menominee
Perrine, May Lewis	Eaton Rapids
Perkey, Carrie Bell	Jackson
Travis, Cora Engel	Hartford
Watson, Myrtie Adelline	Cedar Springs

GRADE VI.

Abernethy, Roselle	Vicksburg
Brabb, Rosetta C.	Romeo
Barrett, Bertha	Niles
Bunday, Blanche Marguerite	Albion

Crittenden, Orianna	Albion
Dickie, Clarissa	Albion
Frambes, Leora Pearl	Albion
Gale, Georgiana M.	Albion
Jones, Tula	Albion
Munro, Louise L.	Bay City
Olmstead, Nora	Concord
Perkins, Amelia	Norway
Powers, Calista May	Springport
Quay, Ethel	Cheboygan
Rouse, Lulu Pearl	Homer
Raymond, Alma M.	Jackson
Scott, Lucille B.	DeWitt
Sutton, Stella R.	St Clair
Tuttle, Frances M.	Albion
True, Verne Belle	Jackson

GRADE V.

Allen, Nettie	Albion
Burrall, Louise	Albion
Blackman, Jessie	Leslie
Brockway, Martha A.	Albion
Cotton, Ollie	Albion
Davis, Helen A.	Albion
Emmons, Bertha	Albion
Ferguson, Teenie S.	Sherman
Gale, Winifried L.	Albion
Groff, Nellie	Albion
Hudson, Ada L.	Akron, O.
Loud, Jennie Lind	Albion
Smith, Lillian M.	North Adams
Stevens, Adelle	Albion
Shepard, Jessie	Albion
Seeley, Nellie	Climax
Stevens, Adah	Albion

Shearer, Delia M.	Jackson
Walmouth, William	Detroit

GRADE IV.

Brown, Agnes	Coldwater
Dwelle, Mary E.	Fostoria
Dissette, Fanny	Albion
Dalrymple, Nellie M.	Albion
Ford, Alta C.	Birmingham
Fox, Julia E.	Sturgis
Haggarty, Maud	Chicago, Ill
Hamlin, Zena	Eaton Rapids
King, Minnie A.	North Adams
King, Fannie	Albion
Kirk, June E.	Albion
Loehr, Anna	Albion
Rouse, Leora Jennie	Homer
Roode, Kate	Albion
Starks, Annabel	Rice Creek
Smith, Rose M.	Sunfield
Whitmer, Mabel	Sturgis

GRADE III.

Allen, Alta M.	Albion
Bruce, Lottie E.	Albion
Doolittle, Alice L.	Albion
Kempton, Lottie Belle	North Adams
Valentine Edith R.	Three Oaks
Verran, Esther K.	Republic
Wightman, R. A.	Albion

GRADE II.

Banks, Walter G.	Albion
Etson, Minnie S.	East Saginaw
Garnsey, Augusta	Mayville

Hanson, Harriet H.	Holland
Jacobs, Edith	Albion
Matthews, Ada C.	Albion
Pray, Bertha A.	Dowagiac
Smith, Mabel E.	Albion
Smith, L. Clare	Albion
Smith, Ola	Albion
Whitmer, Eva	Sturgis

GRADE I.

Brockway, Ruth Hoag	Albion
Clack, Theral	Albion
Greeley, Gertrude	Albion
Landon, Louie	Springport

VIOLIN.

GRADE VII.

Eggleston, Kittie B.	Marshall
Kern, Ota Olan	Homer
Munro, Louise L.	Bay City

NOT GRADED.

Allen, Nettie	Albion
Abernethy, Roselle	Vicksburg
Brewer, Belle	Marshall
Bascom, Edward	Albion
Corliss, Arthur P.	Albion
Carr, Maud E.	Eaton Rapids
Fritz, Gottlob	Albion
Gardner, Carlton	Albion
Hobart, Grace	Eaton Rapids
Jacobs, Leon	Albion
McHattie, Addie	Cedar Springs
Moore, Ralph	Albion
Perkins, May	Norway

Rouse, Lulu P.	Homer
Smith, Mabel E.	Albion
Smith, L. Clare	Albion
Shaw, Mrs. Ed.	Eaton Rapids
Taylor, Wallace	Albion
Wiselogel, Ethel	Pulaski
Wolcott, Ward	Albion

GUITAR.

Beard, M. Maud	Albion
Kennedy, Iola B.	Benton Harbor
Leonard, Otis A.	Albion
Miller, Roy N.	Mason
Parmeter, Rolland L.	Albion
Palmer, Helen F.	Colon
Pitts, Dora	Colon
Staley, Fanny J.	Grayling
Walmouth, William	Detroit
White, Anne	Springville

FLUTE.

Brockway, Martha A.	Albion

PIANO STUDENTS NOT GRADED.

Covert, Grace May	Leslie
Covert, Gertrude Cora	Leslie
Clark, Irene	Albion
Hall, Mattie	Albion
Hight, Rose G.	Chilson
Kennedy, Iola Belle	Benton Harbor
Reason, Effie,	Howell
Shearer, Laura	Jackson
Sexton, Stella	Marshall
Saunders, Carrie	Union City
Taylor, Mrs. Fred M.	Albion

Webster, Claude	Eaton Rapids
Wagner, Jennie S.	Albion

PIPE ORGAN.

Hudson, Ada	Akron, Ohio
King, Minnie A.	North Adams

REED ORGAN.

Rainsborough, Lillian	Albion

VOICE.

Bartley, James H.	Grand Rapids
Bruce, Lottie E.	Albion
Barrett, Bertha	Niles
Brockway, Martha A.	Albion
Bond, Jennie	Albion
Bowen, Frank W.	Albion
Barnhart, M. Amanda	Mason
Brabb, Rosetta C.	Romeo
Cooper, Carrie M.	Jackson
Cutler, Ira E.	Putnam, Conn.
Dwelle, Mary E.	Fostoria
Dickey, Clarissa	Albion
Dickey, Lucinda	Burlington
Emmons, Bertha	Albion
Fox, Julia E.	Sturgis
Fiske, E. Belle	Albion
Gibbs, Henry L.	Mayfield
Green, Eva S.	Albion
Ganiard, George	Albion
Howlett, Marion	Albion
Hanson, Harriet H.	Holland
Hobart, Gertrude	Eaton Rapids
Howard, Clare	Eaton Rapids
Hovey, C. May	Albion

Jackson, Lulu E.	Albion
Joy, M. Grace	Springport
Jordan, Grace D.	Albion
Kennedy, Iola Belle	Benton Harbor
Keller, Lulu P.	Albion
King, Minnie A.	North Adams
Kempton, Lottie Belle	North Adams
Koons, Mary	White Oak
Kirk, Lillian E.	Albion
Knickerbocker, Flora	Albion
Mathers, Matie M.	Lakeview
Maynard, Willis E.	Marshall
Olcott, Louise	Albion
Pray, Bertha	Dowagiac
Perrine, May Lewis	Eaton Rapids
Pealer, Mary A.	Three Rivers
Pugsley, May	Albion
Quay, Ethel	Cheboygan
Rouse, Leora Jennie	Homer
Rumsey, Fannie S.	Leslie
Rainsborough, Lillian	Albion
Sutton, Stella R.	St. Clair
Smith, Lillian M.	North Adams.
Seeley, Nellie	Climax
Starks, Annabel	Rice Creek
Snell, Daisy H.	Albion
Snell, F. Maud	Albion
Shaw, Mrs. Ed.	Eaton Rapids
Shearer, Delia M.	Jackson
Selway, Ernest O.	Dillon, Mont.
Valentine, Edith R.	Three Oaks
Verran, Esther K.	Republic
Whitmer, Eva	Sturgis
Whitmer, Mabel	Sturgis
Wilder, Allen J.	Tekonsha.
Warren, Oscar B.	St. Joseph
Wagner, Dora May	Albion
Washburn, F. Belle	Saginaw

STUDENTS IN THE ART DEPARTMENT.

NAME.	RESIDENCE.
Allen, Martha E.	Pontiac
Allen, Ida M.	Albion
Barber, Rena S.	Quincy
Brown, Gertrude M.	Albion
Bissell, Bertha	Albion
Buswell, Sarah T.	Albion
Bruce, Lottie E.	Albion
Courter, Mrs. M. A.	Albion
Courter, Henry A.	Albion
Cannon, Gertrude B.	Vicksburg
Cole, Bessie I.	Albion
Day, Edna G	New York
Dewey, Grace E	Concord
Dickie, Ada	Albion
DeBow, Roscoe	Albion
Doolittle, Hattie M.	Albion
Ford, Alta C.	Birmingham
Goss, Etta	Otsego
Ganiard, Martha E.	Albion
Grimes, A. Curtis	Vermontville
McHattie, Addie	Cedar Springs
Monroe, Gaile	Albion
Miller, Belle	Litchfield
Mather, Matie M.	Lakeview
Newell, G. Glenn	Grand Rapids

Niles, Irene	Flushing
Rogers, Mary C.	Springport
Ray, Mertie	Albion
Robinson, Sybyl G.	Albion
Spaulding, May	Homer
Scott, Lucille B.	DeWitt
Stookey, Gusta	Litchfield
Sorenson, Emma	Lakeview
Wagner, Dora May	Albion
Whitmer, Eva	Sturgis

PUPILS IN DECORATIVE ART DEPARTMENT.

NAME.	RESIDENCE.
Babcock, Rena	Albion
Bortles, Mrs. G.	Albion
Burrall, Mrs. E. P.	Albion
Colegrove, Miss E. W.	Concord
Ford, Mrs.	Princeton, Ill.
Gale, Mrs. Horatio	Albion
Hill, Mrs. Smith W.	Albion
Kelsey, Mrs. J. L.	Bristol, Tenn.
Knickerbocker, Mrs. W. B.	Albion
Niles, Irene	Flushing
Parmeter, Mrs. E. L.	Albion
Reynolds, Mattie A.	Albion
Robinson, Floy A.	Albion
Skelding, Carolyn	Detroit
Travis, Cora E.	Albion
Worthington, Jennie	Albion
Welch, Mrs. R. C.	Albion
Wood, Mrs. O. B.	Albion

STUDENTS IN COMMERCIAL DEPARTMENT.

BUSINESS COURSE.

NAME.	RESIDENCE.
Adams, Arthur C.	Marengo
Austin, Maude L.	Albion
Bartley, Jas. H.	Grand Rapids
Barclay, Lynda C.	Rice Creek
Bentley, Gertrude E.	Hastings
Boyd, Evander H.	Albion
Bruce, Lottie E.	Albion
Brockway, P. Bruce	Albion
Carnes, Ernest H.	Shepardsville
Callahan, John	Albion
Dearing, James P.	Albion
Elliott, Alton D.	Albion
Emery, Milo D.	Marengo
Fish, Anton G.	Marengo
Frambes, William P.	Albion
Gregg, John E.	Oneida, N. Y.
Gilbert, Myron B	Albion
Grimes, A. Curtis	Vermontville
Giesman, Lillian	Manistee
Gutchess, Fred G.	Albion
Gulick, Lillian	Albion
Hoare, Annie E.	Manistee
Hartung, Willow P.	Albion
Hubbard, Fred J.	Albion

Horton, Robert	Albion
King, Fred G.	Litchfield
King, Martin H.	Homer
Knowles, Jay D.	North Adams
Kellogg, Fay K.	Albion.
Lewis, Iton V.	Marengo
Leaman, Emma	Chelsea
Mack, Kate E.	Albion
Nowlin, Herbert C.	Albion
Ott, Nettie L.	Albion
Popoff, Minco D.	Sistof, Bulgaria
Pitts, Dora	Colon
Rowe, Henry L.	Southfield
Rickerd, Legrand G.	North Adams
Selway, Ernest A.	Dillon, Mont
Semon, Bert D.	Albion
Snyder, Frank	Albion
Selway, Blanche	Dillon, Mont
Saunders, Luella M.	Albion
Saunders, Riley E.	Albion
Taylor, George P.	Sault Ste Marie
Valentine, Edith B.	Three Oaks
Wiselogle, Ethel	Pulaski
Wightman, Renafrew A.	Albion

SHORTHAND COURSE.

Allen, Frank E.	Albion
Ball, Lettie O.	Albion
Ball, Minnie B.	Albion
Bentley, Gertrude E.	Hastings
Brezette, Edith M.	Albion
Cannon, Gertrude B.	Vicksburg.
Carnes, Ernest H.	Shepardsville
Coffin, Edward I.	Albion
Clark, Harlon G.	Vernon

Clark, Will S.	Grand Haven
Densmore, Elmer A.	Albion
Gulick, L. M.	Albion
Howe, Gilbert D.	Cadillac
Husted, Grace	Albion
James, Frank W.	Hancock
Lovejoy, Hattie A.	Albion
Leeman, Emma	Chelsea
Mack, Kate M.	Albion
McDonald, Flora B.	Benton Harbor
Oldman, Alta E.	Albion
Rowley, Carrie E.	Romeo
Schwermer, Bettie	Germany
Urch, Mary E. G.	Clarkston
Wheaton, Horace	Albion

SUMMARY OF STUDENTS.

COLLEGE OF LIBERAL ARTS.

Studying for Master's Degree	5	
Seniors	19	
Juniors	21	
Sophomores	29	
Freshmen	68	—142

PREPARATORY SCHOOL.

Fourth Year	28	
Third Year	26	
Second Year	30	
First Year	14	
Unclassified	69	—167

Oratory	53	—53

CONSERVATORY OF MUSIC.

Piano	105	
Pipe Organ	2	
Reed Organ	1	
Violin	23	
Guitar	10	
Flute	1	
Voice	62	—204

SCHOOL OF PAINTING.

General Art	35	
Decorative Art	18	—53

COMMERCIAL DEPARTMENT.

Business Course	48	
Shorthand Course	24	—72

Unclassified students in Orchestral music	19
	710
Deduct for recounting	181
Total	529

Note.—Some Institutions catalogue students for the calendar year, notwithstanding the college year closes in the summer. It may interest the public to know that did we catalogue by this method it would give for the year 1890—631.

PART II.

CURRENT EDUCATIONAL DISCUSSIONS.

INTRODUCTION.

We desire to make the Year Book a medium of the best thought in the live and important educational questions of the day. To do this we cannot, from lack of space, reproduce in full articles that are published in leading journals, nor secure for our pages extended original communications. We shall, however, extract from available sources the views of our most eminent thinkers on some educational problems, and append such notes as we deem fitting or called for. It is due the people who are asked to patronize an institution of learning that they be permitted to understand the educational spirit and life of such institution. Does the work of the college consist wholly of the set instruction of the class room, or are the teachers themselves students awake to the wonderful life of the day in the great realms of thought? In almost every department new problems are coming to the surface, and old problems are being re-discussed in the light of the altered condition in which we find ourselves placed. In nothing have there been more radical changes during the latter half of this century than in the life and work of our best colleges. And as collateral thereto, effecting these changes and also depending on them, we find positions taken by leading thinkers which no one entertained a few years ago, and which if suggested would have met with very little favor. But the college of to-day is much more efficient than was the college of even two decades in the past. The methods are wiser, the range of instruction is greater, the subjects of study are better fitted to train for practical life. The college has come into closer relations with the peo-

ple so that an education may and does mean more than it formerly did.

We feel very desirous that the teachers of our public schools shall fully understand the trend of the changes in the colleges of this country. They need to know something of the intellectual atmosphere their pupils will find when they enter any of these institutions of learning. The college reacts upon the public school and the public school feeds the college. The work of both looks to the same end. We are sure, then, all will be interested in studying the educational problems of the day.

INDIVIDUALISM IN EDUCATION.

NATHANIEL SOUTHGATE SHALER, IN ATLANTIC MONTHLY, JANUARY, 1891.

The following are the principal discussions of the paper:

"All advance in civilization, indeed we may say the very foundation of the social order, rests upon the organization of men into troops or bands which are trained to act together for a common purpose.

The forethought required in the chief to plan military manœuvers of even the simplest kind, and the self-sacrifice demanded of those who submit themselves to command until they acquire the habit of the soldier are alike highly educative.

As industries develop, they too demand an organization similar to that of armies.

Thus it came about that when (long after the more immediate needs of Society were provided for,) education became the object of general care, the ideals of systematic arrangement which had been so happy in their effects in other deparments

of action were made the basis on which the plans of teaching were founded.

There was doubtless a certain utility in this conception of the schoolmaster's task; the duties of society demand a spirit of subordination in all its members, and with the greater part of them obedience to command is a duty to which they need to be accustomed.

The object of the machinery of which the individual soldier forms a part is to apply force with the intention of overcoming the resistance of other men, and to secure its application exactly where and when the superior wills it.

We should not mistake the lesson which the art of war offers us. This lesson is not that the military method is the plan to be adopted in all education, but that success in bringing men to the desired development consists in determining accurately what is the end sought to be obtained, and in fitting the measures which are taken exactly to the object in view.

The object of military discipline is to develop the will power of the individual, but at the same time to subjugate this volition to the command of the superior; the aim of the education of civilians is to enfranchise the man, to put him in the fullest possession of his natural powers, to quicken and elevate him in every way, and finally to leave him absolutely self-centered and free.

Whoever will clearly set these two diverse objects of the military and the civil training against each other will see how futile, and even dangerous, it is to seek their combination in our education.

The obvious tendency of discipline is to stamp certain traits in men. The effect of this peculiar education is conspicuous in professional soldiers of all grades. They do not readily accommodate themselves to the ordinary stations of society. When they succeed, it is commonly in a position where it is necessary to conduct the operations of a large body of men in

something like a military fashion. They are not usually fit for the tasks which demand the varied attainments and powers of adaptation which characterized the men who constitute the body of our civilized States.

The military or disciplinary idea which pervades our modern education is not in any way to be attributed to the direct influence of the army, for the soldier is never a propogandist of his methods; it has come into existence through the general effect of the military arm on the theories of social organization.

In considering the manner in which the central problems of education should be approached, in the spirit in which the teacher should set about his task, we should at once recognize the fact that the aim is not to train the youth for particular duties, such as those of the soldier, but to bring out of that curious body of latencies, the human mind, the good therein contained. There is but one way in which we can educe these powers in an effective manner, and that is by sympathy, by the spontaneous outgoing of the youth's intelligence towards the spirit which seeks to have contact with it. To perceive the value of this emotion we must understand the historic relation of the development of intelligence. In the stages of life below man, we find that everywhere the intellect receives its principal development through the care of parents for their off spring; and the dependence of the young upon the elders of their kind. All this primal education rests upon the affection which is common to all beings which possess any distinct share of intelligence. The children of men are roused to thought by sympathetic contact with the household: First, by apprehending the motives of the mother; then by associations with other persons who lovingly approach them. If we compare the intellectual movements of a child when it is with those whom it regards with affection, and when it is in contact with strangers, we see the nature of this difference in the action of the infantile mind. It is clear that the way to knowledge which is first trodden is that which is entered

through the gateway of the affection. Until, indeed, the human being is thoroughly individualized, and has become self dependent in a measure rarely attained by any save certain very strong natures, this natural stimulus to intellectual labor which exists in the svmpathies is required for all intellectual advance. Men must think in sympathy or they do not think at all; at best, while mentally active, they must have a constant reference of their thoughts to some one to whom they are to be submitted. (Our passage from childhood makes us in a measure independent of the bodily presence of beloved human beings, but they abide with us as spirits inspiring us to activity by their companionship).

One of the most difficult tasks of educators is to lead the student from the original dependence on the bodily influence of his instructors to the state where he can be contented with the spiritual presence of his fellow man. It is here that the offices of the secular and the religious teacher come in contact with each other; it is the field in which the best conquests of education are yet to be made. A man's life depends upon the company he keeps, and the best of his association in mature years is with the souls he has adopted in his inner life. It is, in truth, the first object of enlarging education to give the youth a chance to win these spiritual helpers to his life. In a way, literature and history accomplish this end by the pictures of human nature which they afford; but these images are very unsubstantial things compared with the collections of the men and women whom we have known.

All these relations between the generation which is arising to its duties and that which is bearing the burden of its elevation are not advanced by discipline; they are in fact hindered by it. The essence of discipline consists in obedience to command,—obedience which is rendered because there is a sense of authority about the commander. This habit of compliance tends to make mental action automatic while our object is to make it rational; moreover, if there be any intellectual activ-

ity connected with action under orders, it is likely to develop the element of resistance, which is the greatest enemy to all educative processes. The youth who begins to set himself against his natural intellectual leaders soon loses the habit of spontaneous sympathy which is the condition of his rapid advance in culture. If the discipline is made effective, it may give the youth certain important compensations for the lack of attachment to his teachers; it may make him patient and resolute, in a way give him soldierly qualities; but the imperfect manner in which discipline is applied in all save the truly military training, commonly results in developing the obdurate habit of mind. In my considerable experience with young men, I have more often found them suffering from the evils of an incomplete and ineffective discipline than from any other cause. The most hopeless cases with which the college instructor has to deal are those in which the youths have long been subjected to a control of some disciplinary kind; ineffective to reduce them to the state of the well-drilled soldier, who acts from pure habit, yet sufficient to destroy the sympathetic relation which should exist between the teacher and pupil.

It will doubtless be suggested that discipline is necessary to any form of education; and while opposing the ordinary form of such training, we may maintain without paradox this proposition, namely, that discipline of a certain sort is clearly necessary to overcome the indolence which affects most minds, as well as to secure the fixedness of attention which it is naturally difficult for any youth to acquire. The point at which I find myself at variance with the common method of obtaining these results is this: usually the effort is to secure this control through habits created from the will of the teacher impressed upon the youth, while in my opinion they can be profitably now only through the exercise of the will of the pupil. There is a world of difference between the diverse uses of the will power. If it be accomplished by sympathetic stimulus awak-

ened in the student's spirit, the effect is truly educative; if it arises from the mere dominance of the teacher, the effect is to repress development.

Perhaps the worst feature of any routine discipline is that it fails to take account of the vast differences which exist between individual pupils, and treats a whole class of students as if they all were cast in one mould. A large part of the evils of society arises from this practice of making a rough classification of men, with the assumption that all who fall within each category are alike. This way of dealing with human beings leads in all our affairs to much injustice; but nowhere is it so prejudicial as in the treatment of youth. The fact is clear that the apparent likeness between men which is conveyed to our senses by the shape of their bodies is very illusory. Within this common envelope of a rigid form we find minds which vary in an almost incredible degree. The biologist perceives in man a singularly invariable species: in form he presents not a tithe of the variations under the diverse conditions of society which are shown in the domesticated animals, but when we consider his emotional and intellectual nature, we observe in man a greater range of characteristics than is discernible in the structures of any order of animals. Thus, the tests of the mathematical examinations in the university of Cambridge show that the variety in this single mental power is enormous. Reckoning the mathematical capacity of the ordinary intelligent man at one in the scale, it is found that the ablest of, say a thousand youths, is something like one hundred times as great. No similar test can be applied to the other mental capacities; but when we consider the accomplishments of poets, orators, philanthropists, discoverers and other path-breaking geniuses, it seems likely that about the same range in ability exists in all the powers of the mind.

When we come to understand the vast scope of the variations in the dormant moral and intellectual abilities of youths,

we perceive the essential folly of our procrustean methods of culture. For the task of educating or developing this variety of latent abilities our ordinary methods are as fit as if we gave the same training to eagles and hares, and sought to bring them to the same methods of life. We see that the very first task of the educator is to place himself in close and sympathetic contact with the pupil, and thus to discover what his nature offers to culture. The next task is to adopt measures to develop these offerings. It is evident that this view of the basis of education makes the task of the teacher infinitely more difficult than it usually is conceived to be. In the old view all that was required was a careful graduation of the scholars according to age and attainments, and a painstaking set of masters who should see that the allotted tasks were done faithfully. In a certain number of years the mill would grind out a satisfactory product with as much certainty as the system of army discipline would, by its training, develop trustworthy soldiers. In the new education the school will have to be a psychological observatory, where men who conceive the nature of human beings acquire and practice the most difficult art of discovering the capacities of each pupil, and of fitting the culture to his needs.

To attain this end will require a vast change in our school system and a great increase in its cost. In the first place it will be necessary to alter the general conception as to the dignity and the value to society of the teacher's art. Even now the function of the primary school teacher is held in relatively low esteem. He is the worst paid, either in salary or honor, of all the intellectual servants of society. It is rare indeed that any care is taken to teach the primary school teachers the true nature of their callings; and if they had every aid which instruction could afford, the conditions of their arduous service would make it impossible for them to apply their knowledge in any effective way.

While in the other important professional occupations, par-

ticularly that of the ministry, the candidate feels it his duty to ascertain whether he has a natural fitness for the calling, the teacher of young children generally stumbles into the place, or if he—more commonly she—deliberately chooses it, does so because no better chance of making a living can be at the moment secured.

Nothing is more certain than the true place of this function in the social system. It is in its nature the most important, if not the most exalted, position which civilization has created, and the organization of our society will be fatally defective until the position of those who lead up the youth to their duties, especially those who have them in charge at the earliest and most critical state of their development, is adequately recognized.

Through the advance in the arts which is taking place, our most civilized societies are rapidly securing an increase in the reserves of capital from which the means of education are drawn. The amazing development of the altruistic motive ever inclines men to spend more of their means upon the rising generation. Yet it will be long before the ideal of industrial culture can be attained. It will require the diversion of the expenditures which are devoted to war and other barbaric pursuits to the cause of education, before it will be possible to do justice to the offerings of capacity which our children bring to us. Although no general plan of such culture can yet be undertaken, it seems possible already to make a beginning in this better method in the higher schools. Our greatest colleges and universities probably afford the field in which a careful experimental study of the problems afforded by the character of the individual students can best be undertaken. The number of students in these institutions is relatively limited, their corps of teachers is proportionately large. Thus, in Harvard University the proportion of teachers to pupils is about one to ten, and in our other American institutions of higher learning the ratio, though somewhat less, is approach-

ing this standard. There are, moreover, changes in the methods of instruction now in progress which will tend far towords the end in view, if indeed they do not of themselves compel a general resort to an attention to individuality in our more advanced teaching.

The reformation of our academic methods of instruction, which is now under way, has been mainly, if not entirely, due to the influence of modern, natural, and experimental science on the ancient branches of education. When natural science first came into our seats of learning, instruction in it was framed as nearly as possible on the then current methods of those schools. The teaching was almost entirely didactic and by class work. The better teachers now introduce the principles of personal inquiry into such studies as mathematics, language and history, where of old the whole labor was thrown upon the memory of the pupil. The great advantage of the method of instruction by experiment consists in the close relation which it secures between the teacher and the pupil, and the more sympathetic nature of their contacts. In such work the pupil finds the master more helpful than in the class-room work, and the teacher thus secures a far clearer idea of the capacities and needs of the pupil than can otherwise be obtained. In no case can the youth there be treated as an average man; he must be dealt with as an individual, and his tasks gauged by his necessities. Very soon the student finds himself in the position and with the strength of a pioneer; he begins to teach his master even while he is himself dependent upon him.

With such a system well formed, we should welcome the youth of each generation no longer to a grim scholastic will, where they are to be treated as mechanically as the recruits of an army, but receive each stranger, as he comes to us from the darkness, with a tender consideration for the good and evil he brings with him, and with an apt adjustment of the resources of education to his individual needs. There are doubtless

many ways in which men may make a new heaven and a new earth of their dwelling places, but the simplest of all ways is through a fond, discerning, and individual care of each child."

The above paper discusses or rather lays before us a very important problem. How can schools and colleges do the best work? Not by massing the pupils and handling them all in the same way. The discipline needed is not like that of the army in which individualism is discarded and a composit unit is formed, a brigade, or a corps moving as one man and as though there was but one will. The same treatment of two or three hundred boys or young men is irrational just to the extent of the existence of mental diversities thus disregarded. The best results can be obtained only by a process that wisely recognizes the mental unlikeness of those we seek to train. There are certainly great difficulties in the way of radical individualization of pupils in the public schools and in the colleges. Yet an ingenius teacher can do something, often much indeed, to adapt his instruction, or educational guidance, to the special needs of particular students. More can be done in college than in the lower schools, especially in the latter half of the course. Seminary or research work, usually taken up about the junior year, is carried forward in small classes of five to ten persons, giving a very favorable opportunity to consult individual predilections and meet individual mental wants. This method belongs to the new or modern college life, and was not known a few years ago. Whoever reads this article will see the need of studying the traits of all his pupils and of regarding the inherent peculiarities in seeking to train the intellectual life.

Mr. Shaler's condemnation of the military spirit—the mere influence of authority—is eminently just. We must get down into the heart of the pupil, awakening thought and drawing out the energies of the mind by attraction, soul-sympathy, leading the will to choose knowledge because the student is

charmed by it, when the teacher and student walk together, or because of companionship through knowledge or truth the fullest potency of the teacher is reached.

[The following discussion touches the same general problem as the paper given above. It will well repay perusal. Fortunate will it be for the race when the people become willing to put money enough into schools to make them what the interests at stake require; when the training of mind shall be regarded as of sufficient importance to sink out of sight all other questions than the accomplishment of the fullest and most rational education of the young.]

HEREDITY AND EDUCATION.

ARMORY H. BRADFORD, IN EDUCATIONAL REVIEW.

"Is heredity an irresistible force? Must that which is potential inevitably manifest itself? Here we face another fact which must be assumed, one which is too evident to be doubted. Heredity is constantly modified by environment. In a vacuum rocks would remain rocks forever; but heat, moisture, frost, pelting rain and driving wind gradually destroy, not the rock itself, but the form in which it existed. Thus the descendants of south Africans were developed into the Incas, the dominant race of the ancient Peruvians at the time of the Spanish conquest. Heredity preserved the race characteristic, but new conditions made a new constitution. Now we assume that the influence of environment on the whole man is the same as on the physical nature. It always tends to adjust to the circumstances of the present that which comes from the past. Every child is the product of all preceding genera-

tions. The problem of education is, by means of environment to modify and, as far as possible, destroy the evil, and bring the good into expression and power. Nor is this all; for tendencies to good when improperly balanced, become evil. Education, therefore, has to do with the elimination of tendencies toward deterioration, and the proper development and balancing of tendencies toward good. The word education is a history. The word implies powers which have come from others and which are to be trained. So of the word culture. Where does culture begin? With birth. The age of impression is quite as important as the age of reason. But culture implies something to cultivate. That something is not implanted by teachers, but is always inborn. All agree that education is the process by which inherent powers are to reach their highest and fittest growths. But how vastly the practice belies the theory. In most schools there is almost total neglect of what ought to be the fundamental principles in education. Instead of being a process for drawing out and developing to its full that which is best, instead of seeking to eliminate the evil and prevent any power from having a drawing preponderance in the scale, our education from beginning to end, (1) ignores the necessary differences in children, treating all as if they had the same heredity and surroundings; and (2) instead of making its business the bringing out of something inborn, it makes it exactly the reverse—a process of implanting, without thought of adaptation to the soil. All schemes of culture should begin with the recognition that each child is different from every other; that the lines of difference runs far back, and therefore are not superficial, and that, in order to secure the highest efficiency, systems of education should be adapted to the individuals to be reached. By the study of what men are, we learn of what they are capable. The word education signifies "To lead out." To lead out what? That which is in the book? No. That which is in the teacher's mind? No. That which is in the pupil. Simple as childhood seems, there is nothing harder

to know; and responsive as it is to every influence about it, nothing is harder to guide. "To develop childhood to virtue, power, and due freedom is the supreme end of education, to which everything else must be subordinated as means," is a true definition of education. A secondary object is the acquisition of knowledge, but even this is subsidiary. Knowledge is not always desirable for its own sake. It is valuable as a means. Study which leaves the manhood narrow, and contracted and fills the head only as gold fills a miser's purse, is not worth the effort required. When this ideal system is contrasted with the systems in common, if not universal, use, what do we find? Is it not true that little, if any, attention is given to the systematic study of child-life? Is it not true that in most of our schools the supreme duty is to go through certain text-books in the time allotted? Is the end of education to cram a child with Latin and history and arithmetic? Is it not better that one example should be thoroughly and completely understood than that forty should be worked mechanically, and perhaps accidentally? What knowledge of child-life, what adaptation to peculiarities is displayed in such a system? I look back to many of the schools I attended in my own chilhood with unlimited disgust. I was not taught; I was put into a procession and marched through so many years of school life, and then let out. I never liked mathematics, but to this day I believe the aversion could have been overcome by a few hours' patient, careful training, with no step taken until the reason for it was understood. Furthermore, if the study was worthy of pursuit, then, simply because of my natural antipathy, it should have been taught with more thoroughness and patience than those studies in which I rejoiced. Here, for instance, is a child who has never known anything about home discipline and has had nothing to awaken aspiration. His education is not completed until he has learned obedience and his eyes have been opened to higher things. The child who is all imagination should, by proper

methods, be brought to understand that he is human; and I know no better way to teach a boy that he is not to live by imagination alone than to set him to the study of mathematics. On the other hand, the pupil who is commonplace and prosaic should have his life illuminated and expanded by familiarity with imaginative literature, especially poetry. Place for spontaneity should be left in all systems of education. The serious practical difficulties in the way of such teaching cannot be disregarded. Political tricksters care nothing for methods of education which put no money into their pockets and win no votes for their party. Penny-wise and pound-foolish tax payers refuse the appropriations which are necessary to make possible the best methods in education. The peculiar difficulty which meets us arises from the fact that it is impossible to have schools which recognize the individuality of the pupils. It will be said, and truly, that our systems of education are directed, not toward distinguishing, but toward common, characteristics; that that in which all are alike is more and greater than that in which they differ. The difficulty suggested here is practical. It is nearly impossible so to order public schools that the eccentricities of individuals shall be met. In private schools the difficulty is not so great, but does not altogether disappear. The only practicable scheme which suggests itself is the proper training of those to whom are committed the responsibilities of teaching. Schools cannot much regard individualities, but teachers can; and they can so order their instruction that each child shall receive that part of the curriculum which it most needs, and according to the best method. In order that this ideal may be realized, the study of human nature must always be placed above knowledge of books. In the preparation of the teacher, in the examinations through which he passes, this requirement should always be placed highest. Before education can be what it should and may be there should be introduced into the curriculum that which may per-

haps be called the study of human nature; children should in a noble way be trained to see what is in man, as they are trained to find rare plants in the field and moss agates in the mountains. More careful nurture in the home will swiftly follow, and that in turn will not tolerate systems of culture in which all pupils are treated as if they were unplastic, and cast in one mould.

In the building of a palace, granite is used for foundation, marble for walls and statues, precious stones and fair colors for ornamentation and decoration. All inorganic things are not presumed to be exactly alike; much less is there monotony among human souls. Shelley and Kant were no more alike than a lark and a dray horse, yet in England both would have been put into the same intellectual hopper. Mrs. Browning and Adam Smith were at opposite intellectual poles, yet in our public schools they would be compelled to submit to the same discipline. In order that its ideal may be reached, education must be intelligent and work according to a plan; it must know the pupil better than books; it must be fully persuaded that the culture of an immortal spirit is as great a mission as the exploration of the stellar universe, and must always adapt methods to personalities."

[The prescriptive rights of the college courses of the past, coming down almost from time immemorial, are today largely ignored. The civilization of the present demands different work from that which was furnished by institutions of learning one hundred, or even fifty, years ago. New studies have forced themselves upon us, the relative prominence of particular branches as viewed by thinking men has greatly changed, and we occupy to-day comparatively a new mental world. In constructing the college curriculum several questions arise:

(1.) What studies shall be introduced?

(2.) In what order shall they be arranged?

(3.) What shall be the method of instruction?

(4.) What prominence shall be given to disciplinary work, and what attention shall be paid to branches of study pursued as a means to or preparation for subsequent work in college or after graduation?

The problems that arise in connection with colleges are more difficult to solve than those that come up before the teachers and school boards of our public schools. The following is an extended abstract of a valuable paper. We introduce it into our Year Book to set teachers to thinking on the forms of value inherent in the branches of study from which college courses are constructed.

THE EDUCATIONAL VALUE OF COLLEGE STUDIES.

SIMON N. PATTEN, UNIVERSITY OF PENNSYLVANIA.—EDUCATIONAL REVIEW, FEBRUARY, '91.

"Elementary education is for the growing child, who is interested only in the living present. The college student is a budding man. The University and professional schools are for the mature man, whose plans for life are already formed, and who wishes to master some science or profession for definite ends. In constructing such a course of study, a measure of educational values is of vital importance. In the first place, there is a large increase in the number of deductive sciences. Our ideas on educational matters have been derived largely from the Greeks, and in their time geometery alone had acquired that degree of perfection which made it the typical deductive science. Now we have a large number of mathematical sciences, each of which has a greater content and is more complicated in its deductions than was the geometery of Plato.

A second peculiarity of our present educational problem lies in the rapid lengthening of the present technical courses, and the additional studies needed to prepare the student to pursue his professional work with advantage. There is also a large increase in the number of studies which directly prepare the student for his profession. These two facts taken together show that but little time is left for those studies which give culture to the student. The third preliminary fact of importance is, that mathematics is now a necessity for almost all the physical sciences, and consequently the mathematical studies have to receive an emphasis in all work preparing for them. For a long time it was mainly a culture study, and thus those parts and problems which had the highest culture value could receive an emphasis. As it is now taught professional mathematics is substituted for educational mathematics. The influence exerted by the technical courses upon the college curriculum is so great that even those who wish to pursue mathematics as a culture study are compelled to study it in books prepared for those who are pursuing it for a practical end, and thus they study the subject in a professional way rather than as a means of culture.

The problem of education values may be looked upon in two ways. We may, first of all, compare the education derived from mathematics, language, physics, chemistry, and economics, and inquire which of these studies, as a whole, gives the most culture to the student. This is the way it is usually presented in essays on education. It is said by those who represent culture, that it is better for the student to become a mathematician or a linguist, even if he does not intend to use the knowledge in his profession, because the power gained will make him a better engineer or chemist.

There is another conception of education that I regard as of more importance. It may be stated thus: shall a subject be taught with the view of making the student a master of it, and thus to enable him to obtain a utility from it, or

shall it be taught with the purpose of producing the greatest effect uponthemind and culture of the pupil? All our sciences are complex wholes, some parts of which help the student in his mental growth, while others are detrimental and even make the student a narrower man instead of a broader one. He must do a certain amount of work, not for culture, but for the indispensable knowledge which he needs for the best use of his own science. The educational value, however, lies not in the knowledge imparted, but in the effect upon the student. It gives him a better capacity for work, a faculty to do other work of a like character, purer ideas of life, greater confidence in his intellect, and keener appreciation of his moral obligations. The utility of a study, therefore, and its educational value, cannot be too sharply contrasted. Yet this difference is too much overlooked in forming the college courses. All our practical courses are long and valued for their utility. These courses are split up into parallel sections, each having some one science, or group of sciences, prominent in them. This tendency has been dominant in the history of recent education, and as a result the student usually chooses early in his college life between several parallel courses, and takes one for its utility to the exclusion of all others.

If the college course is to be arranged for its educational value, a very different plan must be adopted. Each study must be examined, to see what it can do for the mental development of the student, and only that part of it in which this feature is prominent can be admitted in the college course. This plan would necessitate that each study be divided into two parts; the under-graduate, or college course, when that part is studied which has the greatest influence in developing mental power, and the past-graduate course, where further study is made for utility of the content. I agree heartily with the thinkers of the old school in desiring to keep the college course a culture course. I differ with them, however; by thinking that certain parts of each of the new sciences con-

tain elements that have as great an educational value as that of the old studies which they have displaced. The main defect of our college courses is not that we are studying the wrong subjects—utility studies, instead of culture studies. All studies are utility studies or culture studies according to the manner in which they are taught. The defect lies in the fact that we teach each part or problem in the science for its utility, and not for its educational value.

Perhaps the best illustration of what I mean can be found in the elements of geometry as they are now taught. The propositions which we use are not those forming the best specimens of reasoning, and therefore most calculated to develop the mind of the student. Only those problems are found that are of utility to the student in the subsequent books. Everything is cut out that does not lead to this one result. Not only has the mathematics in geometries sunk from an educational to a utility study, but a condensed form of mathematics has taken the place of the completer demonstration of the old geometries. Algebraic demonstrations are substitued for those of Euclid, which, while they add to the completeness and utility of the study, yet are at the expense of its educational value. What is true of mathematics is also to a large degree true of the study of physics. The old demonstrations, which were based on experiment, have been displaced by mathematical formulae. Astronomy has also gone through this change. Chimestry, Biology, and Natural History are undergoing a like change. We must, therefore, look elsewhere than to these sciences for culture studies if these tendencies proceed much farther.

The educational value of any subject, however, cannot be determined from its content alone. It depends largely upon inherited qualities of the students and the classes in society from which they come. As an outcome of the present and past environment and education of mankind, some mental faculties have been much more highly developed than others, and

hence, those studies which call these faculties into activity present the least difficulties to the average student. The more fully developed any faculty is, the less relative attention should be given it.

From this point of view, the highly deductive sciences give less culture to college students than other studies. Mathematics, as an illustration, has been studied so persistently and so thoroughly by many generations that we find a mathematical faculty in our average student which was not possible at an earlier period.

The educational value of a subject also depends largely upon the society or civilization of which the student is a part. That study gives the greatest culture that trains the mind for the class of judgments which must be made most frequently by the average citizen. As the phenomena to be dealt with in life are complicated and complex, the less deductive sciences correspond more closely to these conditions, and give more culture. If a student in college has been drilled mainly in simple reasoning from unquestioned premises, he goes out in life unprepared to deal with problems where the premises need examination and the conclusions must be modified by making due allowance for the conflicting causes which combine to produce the given result. It is, I think, usually overlooked that geometrical reasoning, when applied to the affairs of men and society, is a kind of fallacy. In books on logic, like that of John Stuart Mills, this kind of fallacious reasoning is fully dealt with. The errors that flow from it are so numerous that any one who gets into the habit of reasoning mathematically is sure to make serious errors when he reasons upon the affairs of every day life. The mathematician reasons from a few simple premises, and reaches conclusions which are never dependent upon modification of his premises. He thus becomes a model of poor reasoning, unfit for imitation by any one who deals with more complicated phenomena. In most of the sciences the errors, from reasoning dogmatically from simple

premises, are apparent; yet perhaps political economy furnishes the best example of them all. The mistakes of the orthodox economist arise from this fallacy.

The educational value of a science depends also upon the stage of its progress. A science is complete when it has reached the deductive stage. Then all the various parts are closely joined together and form one body of truth. It begins with an inductive stage when the opposite is true. All the generalizations depend upon observation and a study of the facts. The two stages—the deductive and inductive—cannot always be sharply contrasted, the one with the other At some period in the development of each science, it is in a transitional stage, passing from one to the other; and in this stage it has its greatest educational value. On the one hand there is an immense mass of inductive facts which have not been co-ordinated in a way to show the law upon which they depend. On the other hand, certain parts of the science have been so arranged that the law can be clearly seen. These latter parts have become deductive and from them can be seen the method which must be pursued in the other parts in order that they too may be changed into a deductive form by the discovery of some new law. This stage of transition from the inductive to deductive, encourages the self-activity of those who study the science. There is an incentive to study and to make discoveries, which is not possible in a mere deductive science on the one hand, or in a mere inductive science on the other.

The sciences also that are in a state of transition have the great men and the enthusiastic teachers. The study of a science in this stage of its progress makes the great men, and not the great men the science. If a science is taught for culture, it must be presented as it was when in a stage of transition from the inductive to the deductive stage. When a science is beyond this point, it should be presented not in its final form, where its utility is the greatest, but in the form it had at an earlier date. Present a science as it was when its greatest

thinkers lived and worked, and it will be most suitable for college students.

The educational value of a science depends also upon the character of its premises. The habit of using premises which the student does not question creates a dogmatic spirit. It dwarfs his mind by confining him to that form of logic which deals only with relations of premises to the conclusion. Such reasoning excites little interest or activity. The study of premises, however, is a study of mankind, and of the laws of thinking, and it is a necessary condition of good reasoning upon practical subjects. The same premise has a different degree of force upon minds in different stages of development and in different social environments. To question the premises from which one reasons, opens up the broadest problems of psychology, and forces one to examine into the complicated phenomena of the society in which one lives. The feeling, therefore, that his premises are open to discussion gives the student much greater incentive to accurate thinking than he would have if he were studying a science with axiomatic premises. The opposite of this is of course true in professional studies pursued for utility alone. In them an unquestioned confidence in the premises used is a requisite. If a good professional man is wanted, let him study deductive sciences with unquestioned premises, but beware of praising the same course of study for the culture it gives.

The demand of the present age for more science in our culture courses is in the right direction, but it must not be overlooked that the very success of science will change the whole aspect of the present contest in the near future. To make all the physical sciences completely deductive is the goal of our civilization. Coming ages will thus be forced to look elsewhere for a large part of the studies which are to be prominent in the college curriculum of the future.

But where can we look for studies with a high culture value if the physical sciences have already become or are soon to be-

come utility studies? Of course, from the premises from which I have started, there can be no general or final answer to this question. Yet, for the near future the solution of this problem does not seem difficult. There is a definite order in which the different sciences stand to one another, and each science must wait its turn before its problems can be solved. Mathematics, astronomy and physics, for obvious reasons, were the first sciences to be studied in a systematic way, and hence were the first to reach the deductive stage. Chemistry and biology, being most closely related to them, next received attention and progressive as soon as the knowledge of the first group was complete enough to allow sufficient work to be done in the second. The third group is the moral scienees, and it is in them the great advance of the near future seems to lie. As soon as the sciences that precede them become deductive, they can get the proper ground-work upon which to build. Politics, economics, psychology, and ethics are the group of moral sciences in which the hope of the future lies, and to them increasing attention must be given until they form a prominent part of the college course.

Judged by the standards used in this essay, these sciences form an ideal group. They develop those qualities and faculties which are now most deficient in men. Bearing directly on the affairs of every-day life, they cultivate that class of judgments which are of the most value. The progressive state of the sciences will make the teachers enthusiastic, and the interest which the students naturally have in social problems will increase their energy and self-activity. The character of the premises will discourage dogmatism and prevent the errors in reasoning to which students of mathematics are liable. The mental dependence of these sciences upon one another will force the student into so many lines of investigation that he will secure that breadth and culture needed to keep him from becoming a narrow specialist. When college authorities fully recognize the value of the moral sciences and give them their

proper share of the time of the college student, the advantages of a college education will be much more decisive than they are now.

Do not think, however, that, because I would give to the moral sciences a prominent and perhaps a dominant place in the college course, I would have the college turned into a special school for their study. An ideal college course must always avoid such a result. The college course must select only those problems in each science that have a high educational value, and study them for this value, and not for their utility as parts of a connected whole. In this way all the sciences can have an adequate representation in the college curriculum without that crowding which at present is so much to be regretted."

The article on "The Ideal College Education" by Professor Schurman, of which we give the principal points below, will interest educators and students in our higher schools. The position taken, that college education is not to be pursued for cultural purposes, if this be the meaning of the author, may be questioned. It is undoubtedly true that "knowledge is a good in itself," and in seeking an education the student must attach value to truth sought. But that he should not take into account its reflex influence on his powers, or its fundamental relation to personal success in after life, is more than questionable. Yet this only in part. Does not he make the most complete scholar who in his studies is self-forgetful, whose gaze upon truth is so absorbing, his thoughts so thoroughly absorbed in the objects of thought, that he wholly loses sight even of his intellectual energies? It is evident that the ideal student is more impressed and inspired by the content of truth, what it is in itself, than what it can do for him. It is also evident that truth is valuable to us in proportion as we lose our-

selves in it, in the proportion that our energies are attracted to it and it monopolizes our powers, and because the attention is so concentrated and all the intellectual energies employed have greater directness and intensity. The value of study is at least two-fold, appearing first in the content of truth gained, second in the reflex influence of truth in itself,—and the energy paid out in getting it,—on the powers of the mind. In making an appeal to the young to pursue a college course I should not hesitate to point out the personal advantages that would be reaped, the discipline of the mental energies, the augmentation of power as well as the value there is in truth. The benefit of knowledge does not consist wholly in the having of it, but largely in the getting of it. Were it in the former, the more of helps to attain it the better; but being in the latter the more completely our mastery is a personal conquest the more value in the scholarship. It is not how much we know only, but how we get to know, the mental condition in learning, and how fully we dig the truth out from its hidden depths. The digging is the main thing.

Truth, the writer tells us, is valuable whether we enter any profession or not, and we should prize it more for what it is to us in our personal life than for the professional or business success it may aid us to attain. And then not so much omnibus knowledge as the clearness of mental gaze, mental possessions fully assorted and reaching down to fundamental principles, with the power developed easily to capture truths when sought for. He is an educated man who, with extensive scholarship holds his knowledge most completely within the grasp of reason, and possesses the power readily to invade the world of the unknown That college education is ideal which makes both scholars and men.

THE IDEAL COLLEGE EDUCATION.

PROF. J. G. SCHURMAN, CORNELL UNIVERSITY, ANDOVER REVIEW, FEBURARY 91.

"It is not as easy to-day as it was a few years ago to explain what is meant by a college. The original type has been almost effaced. In a few cases the college has been transformed into the university; but in most cases it is still in travail with an issue no man can foresee. Yet the parental longings are for something different from the ancestral type, and I think we shall make no great error in assuming that the university is the ultimate goal of desire. What, then, is a university? It is the organized home of all the arts and sciences; of literature and philosophy, of the entire spiritual possessions of mankind. It is the function of the university to teach; it is also for the increase of knowledge. It communicates what is known, while at the same time pushing investigations and research into that unexplored domain which, like a limitless ocean, challenges on all sides the petty kingdom of our knowledge. For this reason the university is the proper domicil of the specialist; and we are coming to think of it as a collection of schools, like law, medicine, theology, engineering, in which an elementary training is given in the requirements for special professions. Comprehensiveness and specialization are the fundamental notes of a university.

It would conduce to clearness upon this subject, if the end of a college education could be formulated with the same definiteness as the end of a legal, medical, or other technical education. The view of liberal education as a sharpening of the faculties can be shown to be inadequate, even from its own

psychological standpoint. Some other justification must be sought for requiring of youth protracted and arduous study which is not intended as a preparation for any profession, and which, in a great majority of cases, has no such indirect result. And, to face this difficulty at once, I venture to assert that the only vindication of the outlay of energy, time and money devoted to college education is that knowledge is a good in itself. The attempt to justify it as useful for some ulterior end —as, for example, success in life,—is not less preposterous than the defense of righteousness on the ground that it has the promise of the life to come. Virtue and knowledge approve themselves as Goods to the soul that has them. And we only degrade them when, to stem that materialization of modern life which measures all worth in terms of money, we attempt to recommend them on other grounds than their own inherent excellence and adaptation to the noblest longings of the soul. The educated man, as compared with the uneducated, sees more, feels more, wants more, is interested in a vastly greater variety of objects, and, in short, leads a larger, fuller and richer life. He is touched by emotions, haunted by thoughts, and moved by ideals which are incommunicable to minds that have not been nourished at the breasts of human science and culture. It has been said that the object of education is to train men to think. It were truer to say it gives them something think about. It is not in the activity of thinking (which to seems to be evoked by all sorts of occasions), but by the abundance and excellence of material upon which thought operates, that the man of liberal education is the superior of his fellow thinkers. If this be a right conception of the end of a liberal education, it would seem to imply a mastery of all human knowledge. And, indeed, I should assert that this would be the goal of education if a man lived long enough, and had no other duties than self-culture. The counterfeit presentment of the race, such an intellectual leviathan could be satisfied with nothing less than the contents of all human intellects.

But we are here dealing with the education of ordinary mortals who, at the age of nineteen or twenty, shall be ready for business or the professional training of the university, which has already been described. And the question is, what, according to our conception of the end of a liberal education, should be the training of such youth during the four years just preceding, that is to say, between the ages of fifteen and nineteen or sixteen and twenty?

I assume—and the experience of European countries proves,—that at fifteen or sixteen a boy who has been properly trained can pass on the subjects (or the equivalents thereof) required for matriculation at Princeton, Cornell or Yale; and my inquiry is into the kind of education he should receive during the next four years of his life, whatever is to be his vocation or profession. However numerous our sciences, there are, in a last analysis, only three objects of knowledge. These are man, nature and God. But theology and philosophy, which treat of God and his relation to man and nature, are too abstract and technical for the juvenile minds whose education we are here discussing, though of course their moral and religious training ought by no means to be neglected. Conduct being, as Mr. Arnold has said, three-fourths of life, no sane theory of a boy's education can afford to overlook it. But formal instruction in the principles of virtue and piety seems to have little influence upon practice; and it may well be doubted if the college can do more for a boy than to surround him with the spiritual influences that emanate from its members. The whole subject is one of great practical difficulty.

Abstracting then philosophy and theology, both theoretical and practical, the sole remaining objects of knowledge are man and the world external to him. If I may be allowed to designate as *naturalistic* all the sciences that deal with nature in any of its aspects or divisions, and if I may in the same way designate as *humanistic* all the sciences that deal with life, achievements, and the products of humanity, the problem of the essentials of

a liberal education will consist in making a right selection of humanistic and naturalistic studies. That this cannot be done by the boy who has yet to be trained in both, is a self-evident conclusion, however counter to much of our current practice. That way madness lies—a madness none the less fatal that it is well-nigh universal.

If, then, *we* attempt the selection, thus giving the boy the benefit of the experience of his elders, we should, I suppose, all require both language and mathematics. Pure mathematics, in short, is the universal form of the naturalistic sciences. The goal of every science of nature is to become applied mathematics. And we must require our youth to master as much algebra, geometry and trigonometry as is required for subsequent courses in mechanics, heat, electricity, magnetism acoustics and optics. Whatever training comes from mathematical studies *per se* arises from insight into the nature of demonstrative reasoning, whose value is apt to be overestimated both by those who live in it and those who are ignorant of it. I consider Elementary Mathematics an essential of a liberal education, not becouse, as is generally said, it is a good mental discipline, but because it is the indispensable condition of the study of the principal sciences of nature. Somewhat the same prerogative rank must be assigned to language in the realm of humanistic studies. Language is at once the instrument and the record of human thought. Whatever gives precision to our use of words gives precision to the thinking that goes on by means of the words. But not only is the study of language conducive to exact thinking, it also enlarges the area over which our thoughts may range. For the knowledge of mankind is embodied in their vocabulary: the study of the words and forms of our own or other languages furnishes us with information about the things they represent. To say that we should investigate things and not words is to ignore the connection between them.

The man whose vocabulary is limited to three hundred

words remains and ignorant peasant, but in thrice three hundred words lie the possibilities of his son becoming a Milton or a Burke.

This vindication of the study of language as apart of liberal education leaves unsettled the question what language or languages should be studied. We should all be disposed to put English first. We must hold it to be time that the man who knows only one language does not know even that. What other language should be taken along with English cannot, I think, be doubtful. For illustrating the science of grammar, and the principles of language generally, no modern tongue is so effective as Latin. And as, apart from its utility, its reflex action on the understanding of language in general, and of our own in particular, is (along with the literary culture to be described hereafter) the ground of this requirement, it would follow that, in the teaching of Latin, English should be kept constantly in view. But this will not, of course, supersede direct instruction in our own language. A liberal education certainly implies an accurate knowledge of the meaning of the words of our own tongue. And, more than this, it should imply skill in the art of putting them together into sentences and paragraphs. Linguistic and rhetorical training is thus scarcely separable from literary culture. Language is the vestibule of the humanities, as mathematics is of the science of nature.

But the great humanistic disciplines are history and literature: the one a sober exhibition of what has happened to, and been achieved by, man; the other an artistic picture of his deepest thoughts and feelings. When in the modern world Latin and Greek were made the essentials of all learning, it was because the literatures of Greece and Rome were the only means then in existence for the attainment of a literary culture. That old curriculum will be for our children a thing of the past. But at present it seems to me to be modified very unwisely. For if one or both of the classical languages are

nowadays required in a course of study, they are dropped before the student has sufficiently mastered them as instruments of literary culture; while, on the other hand, no equivalent substitute is demanded in English literature. This is all the more deplorable in the new world where, in the general absence of the fine arts, literature is the sole fountain that might nourish ideal aspiration in our youth and save them from the remorseless grip of an all too materialistic civilization. The love and appreciation of literature is not the privilege of the few, but, in capability at least, a common heritage. And to awaken this dormant capacity, which our present training generally ignores, seems to me one of the highest functions of a liberal education.

Besides literature, the other great humanistic discipline is history. An educated youth has his mind open to the past and the distant as well as to the present and the near. His sympathy stirs his knowledge, and his knowledge broadens his sympathy. There is no other way of knowing what we are except by studying how we came to be what we are. As, then, no American boy should be called liberally educated who has not had a course in American history, our ideal curriculum would prescribe at least two years of previous work in European history, the whole to be followed by a final course in Economics and Finance. And for these studies there would be needed at least two recitations a week throughout the four years of the college training.

I have already spoken of philosophy. In general it is too abstract and speculative for a requirement in the curriculum of a college intended for boys under twenty years of age. On the other hand, the study of the laws and phenomena of mind seems as essential in a liberal education as the study of the laws and phenomena of matter. Besides, the modern science of psychology is as little speculative as physics, chemistry, or biology. It is also an indispensable supplement to these sciences of which it is the natural sequent in

a complete curriculum of study. Much the same might be said for logic in its relation to mathematics. And though there is a good deal in Ethics beyond the range of boys of nineteen, at least its analytical and practical portions should by no means be omitted. In fine, while I should prescribe for the first three years of the college course three recitations per week in mathematics and physics, I would reserve that time in the senior year for an Elementary Course in logic, psychology and ethics.

To mathematics, physics, and the humanities we have now assigned thirteen recitations a week. The remaining two or three must be devoted to the inductive sciences of nature, and of these, chemistry, as doctrine of the elements of matter, should come in the freshman year, to be followed in the sophomore by physiology, the science of the functions of living beings. These sciences will be studied for the sake of acquiring knowledge only. But for the next two years the student should be required to select one of a number of continuous courses arranged for the purpose of giving him some experience of scientific work, some insight into scientific methods, and, what is the end of all, some glimpse of nature's workings from the point of view of the man of science.

I have a deep conviction that the more or less random courses taken by students in our higher institutions of learning are not those best adapted to give a liberal education. No doubt the evil is explicable. Perhaps the chief cause, apart from our imitation of the German gymnasium, is that two or three years are generally lost in the process of preparing boys for college. And colleges make the mistake of allowing boys to elect studies when they are too inexperienced to make good use of the privilege. We encourage specialization even when no general training has preceded. In the expectation that the half-trained youth may add some infinitesimal fraction to the stock of human knowledge, we sacrifice his own liberal culture. But knowledge exists for the sake of man, and not man for the

sake of knowledge. To enforce this principle, we must distinguish sharply between the college and the universities and while making everything in the latter elective, require of boys who can pass at fifteen or sixteen what are now called university entrance examinations, some college training in the humanistic disciplines and the sciences of nature as I have here attempted to describe and vindicate. The establishment or resurrection of colleges of this type (whether as a part of or apart from existing universities), in which comparatively small endowments would effect great results, is the crying desideratum of our educational system, which, possibly by reason of the multiplication of "Universities," is threatened with a loss of the very idea of a liberal education."

SHORTENING OF THE COLLEGE CURRICULUM AND THE TIME FOR COMPLETION OF THE SAME.

Some time since the Faculty of Harvard University suggested the propriety of shortening the course of study in the college of Liberal Arts to about three years, or to a little less than three years, the majority of the Faculty voting for the same. The Faculty's proposals were as follows:

"1. That the requirements for the degree of A. B. be expressed, under suitable regulations, with regard to length of residence and distribution of work, in terms of courses of study satisfactorily accomplished.

"2. That the number of courses required for the degree be sixteen.

"3. That when a student enters college there shall be placed to his credit toward satisfying the foregoing requirement of sixteen courses: First, any 'advanced studies' on which he

is passed in his admission examination beyond the number required for admission; and second, any other college studies which he has anticipated.

"4. That a student may be recommended for the degree of A. B. in the middle as well as at the end of the academic year."

The Overseers of the University have recently rejected these proposals, refusing to shorten the time. While this measure was pending before the Harvard Overseers the subject elicited very largely the attention of educators and college men with a general condemnation of the proposition made. We transfer to the Year Book the following thoughts from the pen of *President Warren of Boston University*. Among other things he says:

"It may serve a useful purpose to set before the interested public a few pertinent facts and suggestions: *First.* The new measure at Harvard makes no provision whatever for a compensative increase of the present requirements for admission to the Freshman class. *Second.* College is not understood to claim that its present requirements for admission are more exacting than those of any first class American college. In fact, in consequence of their flexibility, and of the provision for maxima and minima, many a student now enters Harvard College who cannot pass the entrance examinations at Yale, Brown, Amherst, Wesleyan, and similar colleges. Few people seem to be aware of this fact. *Third.* The new movement aims to cut down the requirements for the A. B. degree to such a point that any apt and industrious student can acquire the degree of A. B. in three years. In point of fact, an exceptionally brilliant student, taking as many hours per week as some of the more hard working frequently take, could finish the proposed sixteen courses and win the degree in two and a half years. *Fourth.* So far as yet appears no effort is made to limit the present range of election allowed to the student so that the A. B. degree in the new terms, as on those now in

force, may be taken by persons whose entire undergraduate course is spent in Harvard, and yet who have never studied Latin, or Greek, or French, or German, or mathematics, or history, or philosophy, a single day in Harvard College. *Fifth.* The new proposal, if adopted, will make the Harvard A. B. the least significant and least valuable in New England. There is even danger lest the "A. B. (Harv.)" become a byword. *Sixth.* No body of American students has ever asked for such a cheapening of the degree. Even at Cambridge the students are reported to have voted against it. *Seventh.* The Harvard Alumni have never asked for the change, and many have expressed themselves in terms of the strongest opposition to it. *Eighth.* Still less have the American colleges, or any class of them, or any association representing them, asked for such a surrender as the proposals of the Harvard Faculty contemplate. On the contrary, the authorities of every college in New England, if not in the United States, deprecate the movement as fraught with grave far-reaching evils in all the colleges, Harvard included. *Ninth.* The fitting schools have not desired the change. On the contrary, nearly all yet heard from deplore even the discussion of so demoralizing a proposition. *Tenth.* Massachusetts, which has ever felt a special ownership and pride in Harvard college, has required no such action as that proposed. Had the Legislature, five years ago, required it, how furious a storm of indignant opposition and expostulation would have raged from one end of the land to the other! Courts would have been appealed to, constituencies instructed, new legislators elected, to frustrate so pernicious a measure. Yet, *quod non fecerunt barbari, fecerunt barbarini.* What the Philistinian "rural members" did not do, that the Faculty and Corporation of Harvard are doing their best to accomplish. *Eleventh.* No ecclesiastical or religious body has called for the innovation. All the religious bodies, even to those which are popularly supposed to care least for culture, seem stoutly to oppose so needless and harmful a capitulation. *Twelfth.*

The entire movement is self-originated in Harvard University, and herein, for the first time in all her noble history, Harvard appears before the American public, and the world, as the sole leader in a confessedly and disgracefully downward and backward movement in liberal education.

On careful consideration of this matter, several questions suggest themselves—questions which the Harvard Overseers and all custodians of the higher education should take time to investigate. For example: It has been jauntily assumed that the age of Harvard under graduates is too high, and that the only problem is how to reduce it. Would it not be eminently appropriate for all concerned, first of all to make a few inquires like the following:

1. Is it a fact that the majority of the youth entering Harvard and other colleges, are any too mature for that self direction in study now expected of them?

2. Is it a fact that they are any too mature for that manly self-government in conduct now expected of them?

3. If younger, would their power of sustained and accurate abstract thinking be sufficiently developed within the limits of their course to enable them thoroughly to master the fundametal philosophical, ethical, and sociological sciences as now taught? It has been assumed that the age of those entering our colleges is higher than it was fifteen years ago. Precisely the contrary is the truth in Boston University, and it might be well for all concerned in the discussion to inquire:

4. Whether the age of *the majority* of students in college has not of late years steadily fallen in all, or most, of our classical colleges. It has been assumed that the growth of the higher education in our country has not kept pace with the growth of population, and the short weight degree (which may also be spelt short wait) has been represented as the only cure for the evil. As the first allegation does not accord with the results of my investigation, nor the second with my judgment, I venture to suggest two further questions:

5. Whether the relative significance and power and growth of the higher education were ever as great in the United States as to-day. And,

6. In case they are not, whether the best way to cure the evil would be to raise up a larger crop of superficial and one-sided smatterers chiefly interested in obtaining the earliest possible chance for money getting?

It has been asserted that many of the students who now enter schools of medicine would first have taken an A. B. course had this required but three years instead of four. As in all my life I have never yet learned of one such student, it might be well to institute another inquiry and to ascertain:

7. Whether ten such students can be found in all the scores of medical schools in the United States taken together?

It has been assumed that the required attendance upon college four years makes the collegiate medical students far older on graduation than they ought to be. Inasmuch, however, as the statistics of the Harvard Medical school show that the non-collegiate members of the school are but seven months younger than the collegiate, it would be wise to inquire:

8. Whether a four years' course in liberal arts may not abundantly pay for seven months delay in entering upon medical practice?

It has been assumed that a three years' course in arts would attract far greater numbers of young men than can be induced to take a four years' course. Inasmuch, however, as many of the best colleges of the country have for many years offered both three years' and four years' courses under the same teachers and with degrees conferred by the same authorities, the three years' course inviarably offering even greater privileges of election than the four years' course, and still many times more students have always chosen the four years' course than the three years'—it is certainly fitting to start another inquiry:

9. Whether untested assumptions are to be made the basis

of far-reaching and revolutionizing measures in educational administration?

It has been assumed that Harvard College, without consulting with any other colleges of the country, has the full right to cut down the A. B. course to three years. Mightit not be well to discuss for a little

10. Whether she has not an equal right, if it please her, to cut it down to two years, or to one, or to six months?

It has been assumed that if Harvard were to cut down her course, all the other classical colleges would do the same. In view hereof, might it not be well to ask:

11. Whether, in case they were to do so, it would be a good thing for American education—a thing for which, in history, Harvard University would be pleased to take the responsibility? And

12. Whether, *in case they were not to do so*, it would be a good thing for Harvard College?

In closing I may be permitted to say that Harvard College is the one institution whose leadership the other colleges of the country will gladly accept and follow so long as she is true to her own illustrious traditions. The warmth of our remonstrance is simply an index of our habitual love and loyalty."

The reader of the Year Book will be glad of the opportunity of perusing the following thoughts from the pen of *E. Benjamin Andrews, President of Brown University*, on—

TIME AND AGE IN RELATION TO THE COLLEGE CURRICULUM.

"Would the shortening of the collegiate courses for the degree of Bachelor of Arts be a step in advance? I cannot think so. It seems to me, on the contrary, that all the ad-

vantages which that change could possibly bring may be secured otherwise while the abbreviation of the course in college must certainly entail extreme loss in various ways.

The other fact which should deter us from hastily following British precedent on the point at issue is, that an undergraduate course of but twenty-seven months is in any event safer in Great Britain than it would be among us, owing to the superiority there of secondary teachers and schools, and the broader range of opportunities for high culture enjoyed by British youth who frequent the Universities.

Quite as surely misled are we if we clip our college course to match that of the Gymnasium of Germany or the Lycée of France. This for the strong reasons, among others, that we, as yet, have in America neither the power which is available abroad to co-ordinate college curricula with the studies which precede, nor the means at command in European lands to tempt young men into University work after twenty-seven months of preparation, nor the resources of Europe for profitable University study to offer to such as can and will engage in this. So far as appears, the pressure for a shortened course in college comes mostly from the authorities of schools for medical and legal training.

Very few people primarily interested in liberal education as such, are in favor of it. The theological professors strongly desirethe liberal course to be at least of its present length and severity. It is much to be hoped that a decided reduction in the age of students in professional schools may in time come to pass; but it would be a grave misfortune to bring this about by a mechanical and arbitrary shortening of college time.

The common opinion that the usual age of college graduates in New England is increasing, I consider an error. The average age naturally advanced somewhat when, a few years ago, the requirements for admission to the freshman class were made severer. Unless I greatly err, the usual age of the youth in the eastern colleges is falling, and is destined to fall more

and more, though the requirements for a bacalaureate degree remain as now. But the main trouble at this point does not pertain to the college course, and cannot be properly cured by any change, temporal or other, in that. It lies in the earlier stages of education. Thorough explanation of it would lead to a criticism of all our primary and grammar school work. The teaching in most of our lower schools is very poor compared with the corresponding service in Germany and France. This has been clearly and frequently pointed out of late years. We are lamentably behind in inculcating the elements of science. Our methods in language are nearly as bad. Great progress is still to be made in teaching the accidence of the Greek and Latin tongue. Very much more grammatical detail is insisted upon than need be touched at all, a great deal of it being certain to be picked up as needed in the course of that copious reading which should be insisted upon at the earliest possible moment; while many rules of all sorts are painfully and laborously taught in most of our schools, that are of nouse whatever at any period, save as a training to the memory through the work of learning them. Now when the economy which we are certain to attain in these various particulars has been secured, we shall, I believe, save to the average college graduate at least one year of the time which he now spends upon his education, and probably two. I do not share the view that college students need to be as old as they now average in order to recieve the full benefit of their severer studies. Proper teaching in the lower grades will send to college better thinkers as well as better linguists and writers. It will be said, in other words, that when the betterment has been brought about, although the collegiate course should then be but twenty-seven months in length, the pupil's entire education will be quite as good as now and even better. That is possible, but I do not for my part admit that thirty-six months would be too long a time to spend in college, even were the teaching in the lower grades the best possible, The proficiency

required for the lowest degree in arts is much more important than it appears at first sight. It is very influential in determining the standard of a liberal education and even of general intelligence for the nation. It should involve too much rather than too little. The curse of our time, so far as liberal education is concerned, is early specializing. Trained specialists in every department of science are at hand. But if one seeks a scholar, a well-rounded thinker, a man of generous and broad mental sympathies, the search is a long one. I believe that any one who has been charged with the work of hunting up fit occupants of professional chairs feels that what our part of the educational world needs is not so much special attainment, which it is extraordinarily easy to furnish, but broad, deep, rounded, masterful, intellectual culture. If the scholarship of the nation is to be maintained, we must have more of this. Even the particular sciences themselves suffer from the undue relative prevalence of special study. Who can look back over the long conflict between science and religion as commonly understood, without being impressed that the entire difficulty has arisen from the inability of either side to appreciate the truth held by the other? This myopia has its source in immature specializing. If this quarrel is unique in its proportions, it is typical in its character.

Now it is during the pupil's collegiate years that this all-important widening of the mind's horizon, this precious enlargement of the intellectual sympathies, takes place. How often is one pained, following youth from college into their professional studies, to find the range of their sympathies narrowing as their mastery of new subjects increases! The influences under which they have come sharpen the mind, but are not helpful to greatness of thought. They are not intended to be. Nor can we safely forget that the need of wide and constructive intelligence must become more and more intense as one increases in complexity. The standard liberal education, far from lessening in its scope and range, should increase.

To possess universal sympathies, to provide one's self with eyes looking every way, each one telescopic, demands a larger and larger outlay of time and pains as the years pass. Professional schools are not fitted to impart this.

If, however, we were to agree that a pupil should end his collegiate life with only the amount of training which he would secure by a first-class preparatory course capped by another of twenty-seven months in college, I should say that the proper place to curtail is not the college, but the preparatory school. There will not, in half a century, be many high schools or academies in our country which can give to their advanced classes so good advantages as those which are afforded to freshmen by the New England colleges at the present moment. There are many reasons for this. One is that, save in the few amply equipped schools, the teaching will never be as good.

Another and weightier reason is that a high school, or an academy, is not, and never will be, a college.

College teaching always tends to be wholesomely liberal. Class-room work, while furnishing a great part of the pupil's discipline during his school years, is far from giving it all. Much comes from the traditions and the atmosphere of the seat of learning. The attrition of pupil with pupil, the association of each other with young men from different states and countries, from all sorts of homes, of diverse environments throughout their earlier years, of various grades of culture, of conflicting religions and religious sects—all this is highly beneficial. Great libraries, museums, observatories and laboratories, distinguished men who visit the college from time to time, and occasional contact with advanced students pursuing original investigation, all operate in the same inspiring way. Of this kind of help to a higher life, young men cannot have too much. I should therefore unhesitatingly prefer that the young man who has studied a certain number of terms and is now about to go into life or enter some professional school, should have had thirty-six months of his preparation in college rather than

twenty-seven months in college, and an additional year in some different institution.

Many would, I have no doubt, concur in this view, but would say: "Grant that the Bachelor's degree after the reduction will be less worthful than now, that it will imply less discipline, less culture, less mental power in general, yet the good done by colleges to the rising generation, to the country and to the world, would be greater after the change than now because the advantages, though inferior, would then be shared by a much greater number." There is even ground for fear that the outcome might be the reverse. The policy of reduction could easily be construed as an admission in the part of its friends that collegiate education was of little worth, thus multiplying the numbers of those passing directly from preparatory to professional schools.

I am persuaded that from my own college, at any rate, the length of the course excludes none or very few. The young men who mention this as a bar to entrance are almost always influenced by other considerations. The older never plead it. It is suggested by poor scholars whose presence in college is of doubtful advantage anyway. The students who drop out of our classes are not the oldest and are never, except such as leave on account of ill health, the best. They are the men of feeble will power and intellectuality; most of them go either during the freshman year or at its close. Hardly one gives up at the end of the junior year, and I do not think that one per cent. of our students who conclude that year would feel it to be other than an irreparable loss to end their course there. The facts at the University of Michigan tally exactly with those at Brown University. The academic faculty at Ann Arbor have of late been gathering data which bear on this part of our problem in a very interesting way. They find by dates, actual statistics, that a much smaller proportion of their candidates for degrees than they had supposed relinquish their courses before graduation to enter the professional depart-

ments. There is a distinction of better and worse between branches of study in reference to their fitness to be pursued in college. Further, among those matters which are suitable to be taught, there are some which of right receive the pupil's attention earlier than others. First ought to come the disciplines calculated to build up the power for steady, methodical and long-sustained mental exertion. Next, filling the middle half or two-thirds of the course, you may well crowd in, for election by different pupils according to their preferences, all the natural sciences, mathematics, phases of history, sociology, philosophy, literature and religion, for which teachers are at hand. And last, crowning, unifying, and vivifying all, should come a good deal of specially hard drill in the science of mind.

Some such arrangement of studies as this, articulate without rigidity, compelling effort and repelling gross idiosyncracy while nursing individuality, will be found educative far beyond either an iron curriculum on the one hand or mere *laissez faire* intellectual browsing on the other. Now and then, to be sure, is encountered a young man who, owing to some mental peculiarity, would best not conform at all closely to any program of this sort, but he will find his non-conformity a misfortune, a cause of weakness.

Now my conclusion is this: Twenty-seven months is too little time to admit of putting due system into a liberal curriculum. Without more, you inevitably slight either the disciplinary portion at the outset, or the liberal and nutritious part in the middle, or the unifying mastery at the end. Should it be decided after all, that the true fortunes of higher education in New England and the East would be best subserved by shortening the course for the degree of Bachelor of Arts, this certainly would not be the case further west, and we are bound to plan for the best interests of education the country over. The colleges and universities in the central and western states are doing a work of incalculable advantage to this nation and to

the world. From the nature of the society by which they are surrounded it is impossible for them to maintain quite as high a standard as prevails in New England. If we reduce the time, they will perforce reduce; whereas, beyond question, the desirable thing for them is rather that their courses should be extended."

The Independent of April 16, in commenting on the action of the Overseers of Harvard speaks as follows:—

NO THREE YEARS AT HARVARD.

"It is safe to assume that the action of the Harvard Overseers, in rejecting President Eliot's scheme for shortening the Harvard course, represents the opinion which prevails among college graduates, not only of Harvard but of American colleges generally. There is a community of feeling and interest among college men in general. They reason in similar lines from similar premises toward similar ends, and on a matter like this are apt to stand not very widely apart.

So far as we are acquainted with the considerations which have controlled this opinion, they have related for the most part to two points, the doubt as to whether degrees should be given on less study and proficiency than now, and a very decided conviction that, instead of abating anything from the standard of admission, more of the technical preparatory drill should be thrown back into the academies.

There has been too much attempt in this country to make universities by calling something a university. We shall never have our universities working freely and to the greatest advantage so long as the students come to them from the academies as imperfectly drilled as they are now.

The thing to be done now is to turn to Academies and prepartory schools and overhaul them. Time and money spent

on them will be time and money well spent. They should be equipped to put their boys forward both faster and farther. When they do the work that is done in the English public schools or the German gymnasium we shall be in a position to make a use of our college and university machinery which we cannot make now.

Meantime it must be admitted that serious evils are connected with the American system of a common curriculum four years long. It bears very hard on bright men and takes no account of previous work that may have been done by advanced students in the class. We know of one student in one of our old universities who in the Freshman year applied to be excused from Algebra and Geometry on the ground that he knew them well and had taught them for some years. The college rules required him to go through the farce of recitation to a tutor who knew less of the subject than he did.

This cast-iron inflexibility has now been very much modified by optional courses; but whether the four years course should be abandoned and the degree based on drill and examination in a certain specified number of equivalent courses, is a question on which much may be said and will have to be said before college men generally will come to an agreement.

It involves as the first consequence the breaking up of the class system and with it of the close college intimacies on which so much of the good of college life has thus far depended. It tends strongly to radical changes in the methods of instruction and the substitution of lectures with examinations for the daily and required work of the class-room.

On the other hand, when men have reached the point where the object of study is not so much disciplinary as the acquisition of systematic knowledge in certain definite departments, this system of degrees based on proficiency in a certain number of equivalent courses has very high and strong claims to consideration. It has worked well where it has been tried and as far as it has been adopted. It is a free system which

provides for men to advance freely and as rapidly as they are able without being held back by slow-paced students, and it is an elastic system which makes possible the widest variety of study. In fact, this would seem to be nothing more than the realization of what is involved in the idea of a university."

The question of the amount of work that ought to comprise a college course is so important that we have been led to give a good deal of space to the discussion of the subject. The views of the Faculty of Albion college are very decidedly in opposition to the shortening of the curriculum. On the side of scholarship there is to-day much greater demand made on the young than in the past. The most difficult feat now to accomplish is to find room in a four years' course for all the branches which ought to be taught. The discoveries and elaborations in the different fields of inquiry have reached such a stage as to crowd multitudes of subjects on our attention which are well worthy of a place in any college schedule. And many of these are so intimately related to intelligent citizenship and the fullest success in professional and industrial life that, to leave them out of a course of study would greatly reduce its value. This surely is no time to lessen the advantages of a college course. Institutions of learning should not fall behind the rational demands of the age which look to the schools to lay a broad foundation for what are called the learned professions and those industries which rest upon a wise application of so many of the profound principles of science.

The term "liberal culture" is somewhat variable in meaning, depending in a measure on the provisions for culture. At the present time, when public intelligence has become so general, the upper plane of learned men is lifted to a higher level than formerly. He may scarcely be regarded as possessing liberal culture who does not come pretty near up towards the plane of our best general scholarship. A college that drops

in its work, that pares off its course to bid for patronage, is scarcely worthy of recognition. We trust the time will never come when the traditions of learning which have made college life so attractive and honorable shall give way to a spirit of cheapening of education, dragging downward that which has been the condition and inspiration of our highest civilization. The objects to be sought are, wisely constructed courses of study, the best methods of instruction, abundant appliances for thorough and extensive work, and a progressive atmosphere of learning which inspires an upward gaze that will protract student life indefinitely beyond the day of graduation. Colleges should be valuable for the scholarship they bring within reach of the student, and the incentive they give for earnest, life-long devotion to study. We should stimulate an advance and frown upon every suggestion looking to retreat. A forward, not backward, movement. This it is that colleges owe to the civilization of the day.

ON THE TEACHING OF LATIN AND GREEK.

C. ALLEN, RUGBY ACADEMY, PHILADELPHIA.

"What methods shall we adopt so as to retain our classics with all their valuable influences for good? The problem how to harmonize former thoroughness with modern haste is by no means an easy one.

The difficulty lies largely in that part of the educative process which falls under the teaching of the first two years. It is absolutely necessary to make the preliminary course as short and practical as may be without the sacrifice of thoroughness. This is not impracticable if we remember that the most valuable discipline of the classics is to be secured not, as some would have us believe, by discipline alone for its own sake, but by such a combination of discipline and practical work, or rather

by discipline through practical work, as shall give the student the benefit of mental training almost without his knowing it, and, while his attention is fixed on one result, shall secure another and better result. I would not strengthen the memory by committing page after page of grammar in Latin, while Latin is an unknown tongue. In other words, while our aim shall be the easy enjoyment of the ancient literatures as soon as possible, we must not forget to obtain, on the way, the mental power which the classics are so able to impart."

Then, in speaking of the ways and means of carrying out these views, the author refers to the use of first lessons made up of selections from Cæsar, and after granting that this method may have some value, says:

"But I have thought there is a better way, and that way would be through a genuinely inductive method based on Cæsar alone. Such a method has the following advantages. It awakens and sustains the interest of the student; it supplies information when the need of it is felt and not before; it proceeds gradually from the known to the unknown, in accordance with educational maxims; its material is drawn from the actual text in connected order, thus being more interesting and making the student thoroughly familiar with the author he is studying; most important of all, it saves the student nearly half a year and in many cases nearly a year of time, inasmuch as, while acquiring his inflections, he will at the same time have completely read the Helvetian War. These and other considerations compel me to give, as my first suggestion, the adoption of some introductory book using the inductive method and based on Cæsar.

It is true that this method makes rather greater demands on the teacher than the old way. This, however, may be a positive advantage, and will certainly be no obstacle to earnest teachers. It is also true that the ideal book constructed on this plan has not yet appeared.

Next, and contrary to the usual custom, and to the opinion

of many eminent educators, I have long thought that the plan of teaching Latin composition from the beginning is a mistake. The proper order has always seemed to me to be, first the comparatively easy art of reading, and then, the far more difficult one of writing. I claim that the attempt to do English into Latin at this early stage is not only unnecessary, but positively harmful. The exercises are invariably distasteful to the young student and the success to the average pupil is very doubtful. The endeavor to construct idiomatic sentences before anything has been developed of Latin style and order, or anything felt of the genius of a Latin sentence, is useless as an exercise in Latin composition, and a hindrance to future precision. To be at all correct, the exercise degenerates largely into servile imitation, and there is considerable danger, despite the care of the teacher, of acquiring a slovenly and objectionable style. I have found that by deferring the doing of English into Latin to a later stage, the pupil approaches the subject intelligently and with interest. Latin composition should find no place in any shape in the first two years of study. The same remark applies to Greek, only still more forcibly.

My last point has reference to the terrible chasm which most teachers feel exists between the elementary book and the formal reading of Cæsar and Xenophon. The inductive method does something to bridge the gap. But something more is needed. Various methods have been adopted with more or less success. I don't think any of these methods quite meet the case. The want is apparent, but to supply it is not quite so easy.

Among educational questions, that of the value of the Ancient Classics shows undiminished vitality. It is clearly felt to hold an intimate relation to the best culture. This is shown by the phase which the discussion has recently assumed. It is not so much a questioning of the right of the Classics to a place in the college course, as the assertion of their right to be put on the vantage ground of better methods of teaching: the methods that have worked such revolutions in other departments.

We give below two extracts from "The Academy" of January, 1891, which will show how the modern spirit is at work, and the results towards which it is tending. These extracts are especially valuable as coming from practical teachers, who are in positions which give their opinions weight and authority. It is due the authors to say that only the main points of their articles are given, leaving out very much of the fuller statement, and of the illustrative matter. This is particularly true of the article of Mr. Burgess, who fortifies his position by very full statistics from Cæsar.

THE WORK OF THE FIRST YEAR IN LATIN.

I. B. BURGESS, BOSTON LATIN SCHOOL.

"In recent years the method of the best Latin teachers has been, to a greater or less extent, inductive. Probably all progressive teachers believe that pupils should gain some of the facts of the language by the inspection of the language itself, rather than by learning statements about it in grammar. There seems to be, however, wide difference of opinion as to what the material for induction should be; and as to the extent of the knowledge which a pupil may safely gain for himself from Latin text.

Some evidently think that little more than the rules of syntax ought to be learned from Latin text, and that these can best be learned from detached sentences from different authors. Others, on the contrary, believe that syntax, forms, vocabulary, words, order, and, in fact, substantially all the leading facts and rules of the language, should be learned from the language itself, and that the pupil's observation during ths first year should be directed to one connected classical work. This may be called the stricter inductive method upon connected text.

I am a firm believer in the latter method. After experience

with the non-inductive, the partial-inductive, and the stricter-inductive methods, I find that the latter has the following advantages over one or both of the others. *First*: *It is more consistent* to teach forms, syntax and vocabulary inductively than it is to teach only the syntax in this way, while forms and vocabulary are learned, not from the text, but from artificial tabulations. The habit of independent observation cannot be formed while the pupil is neglecting it in the larger half of his work. A *Second* advantage arises from unity of subject matter. This subject matter, if we take Cæsar, is the product of one author, conspicuous for his simplicity and definiteness, writing upon one subject. The pupil needs to get accustomed to but one set of peculiarities, not several, as he has to do if he passes from a fragment of one author to a fragment of another. After getting accustomed to his author and the subject, he can anticipate what is coming and so translate rapidly. The vocabulary consists of terms which are related in meaning, and so one term helps to recall another. Most important of all, the unity of subject matter provides for a proper recurrence of words and the pupil learns the common expressions, not so much by the repetition of vocabularies of isolated words, as by actual work of translating new matter. In this way the advance takes care of the review, and the whole desirable vocabulary is kept going.

Closely connected with this advantage of unity, is the further advantage which comes from the limited vocabulary and the limited variety of form and syntax which Cæsar uses." Here statistics are given and their significance in regard to vocabulary is stated in these words:

"A pupil who reads properly two pages of Cæsar will need to look up only one word in three, and one who reads fifteen pages, only one word in seven." Their significance in regard to forms as follows: "Not only are many forms learned by the pupil" (in the old way) "which are unused and, therefore, needless, and not only is great emphasis put on many

very rare forms, but many common forms are presented to him before they need be. If the forms are learned only as the text presents them, they will be learned very gradually and be used very thoroughly before new forms are presented. I should say that, on a conservative estimate, one-half of the time usually devoted to learning forms during the first year is wasted. The waste in learning syntax is also considerable.

It is a strong evidence of the excellence of the method here described, that it is directly in line with the steady educational progress of the last fifty years. Thus, in arithmetic, the pupil now studies his example and its solution before he learns his rule (if he learns a rule at all), and it is seen to be absurd for a pupil to spend time on cube root when he cannot foot up a butcher's bill correctly; in science, the illustrated lecture takes the place of mere text-book work, and now the laboratory with experimental work by every pupil has taken the place of the illustrated lectures; in history, the best teachers make the elementary pupils scrutinize the essential facts in the history of a nation, classify them and draw appropriate lessons."

He closes his answers to some objections, as follows: "The general objection—'It is too hard,' is sometimes raised. In what respect is it harder than the current method? It has been shown that it requires a far less extensive range of forms and a more limited syntax. It does require, however, the habitual and concentrated use of the powers of observation until a habit of observation is formed. This with poorly trained pupils is hard, but the good work must not, on that account, be abandoned. We complain bitterly enough that our pupils have not learned the habit of observation in the grammar school. Shall we pass them on to the college in such a condition that complaint of us will be justified? The constant demand throughout the pupil's course and the constant demand of the work of life is that the pupil shall be able to see, and to use what he sees. The ability to do this does not come by nature. Let us see that we do our duty in the matter. * * That was an awful indictment brought against his teachers by a distinguished educator, when he said that he did not remember that these teachers ever helped him except by downright telling."

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7/9 1892

YEAR BOOK

from ALBION COLLEGE

1891-92.

YEAR BOOK

—OF—

ALBION COLLEGE

—FOR—

1891-92.

ALBION, MICH.

PUBLISHED BY ALBION COLLEGE.
1892.

FRANK F. COLE, PRINTER, ALBION, MICH.

PART I.

CURRENT EDUCATIONAL DISCUSSIONS.

INTRODUCTION.

In presenting the Year Book to the public we propose to do two things, to give information as to the work, appliances and progress of the institution, and also to bring to the attention of the reader some of the great problems that are engaging the thoughts of the educators of the present day. If the college asks for patronage it should tell the people what it is doing and state its plans for the future. It should give its courses of study, state its appliances, present its methods and inform the people as to its aims. But it should do more than this, it should seek to mould public opinion for the better on educational questions, awaken an interest in scholarship, and attract the young into fields of study. It ought to be a great force inside of college halls and out among the people. This issue will be divided into three parts. Part I will be given mostly to the discussion of some educational questions upon which the eyes of the public are now turned. We give two or three papers illustrating the work of our seminary or research classes. These we print, not as necessarily endorsing the position taken, but as showing the character of the labor performed. Part II is devoted wholly to the work of the several departments of the institution. Part III is simply a catalogue of students enrolled during the year, or so much of the year as has transpired before this publication is issued.

UNIVERSITY EXTENSION.

University Extension is a movement to carry the means of college or university education out from the college to the general public. It is a provision for instructing the people at their homes instead of calling them from their homes to the great educational centers. The conviction has been growing that institutions of learning should, if possible, do a broader work than heretofore—broader in the sense of more largely reaching the general public. The question has been raised, time and again, as to whether some portions of the college curriculum could not be taught by lecturers sent out from these centers, thus promoting the scholarship of the country, and engendering a more widely literary atmosphere. Could not those who are unable to attend college be thus favored with the means of education of much value? Surely there are longings for scholarship among many of the young, who from lack of means or from special conditions cannot leave their homes. There are others, too, far advanced in years or too firmly held by business or family ties to take up a college course. Cannot something be done for classes like these? University Extension is a movement, educationally, to reach the general public.

There are in it many possibilities, and yet it is not identical with the actual university, and there are conditions which greatly limit its work. It is not, in scope or thoroughness, a substitute for a college course. It is in some respects university in its methods, instruction being given by lectures, not by the study of a text book with recitations. But the higher university work it cannot do, that is original work prosecuted by the student, because of lack both of preparation as a rule and facilities for the same. Usually great depth

cannot be secured and the field must be a narrow one. It is believed great good will be accomplished, and the movement deserves hearty commendation.

We feel we could not do the public a better service than to spread out on these pages some of the utterances of able men who have given much attention to this subject. A paper on

"DOUBTS ABOUT UNIVERSITY EXTENSION"

From the pen of Prof. George Herbert Palmer, appeared in the March number of the Atlantic Monthly, from which we make some extracts. We give these quotations as a part of the discussion to which the public are entitled, for all sides should be considered.

"From the first the American college has been organized by the people and for the people. It has been about as much resorted to by the poor as by the rich. Through a widely developed system of free public schools it has kept itself closely in touch with popular ideals. Its graduates go into commercial life as often as into medicine, the ministry, or the law. It has shown itself capable of expansion, too, in adjusting itself to the modern enlargement of knowledge. The rigid curriculum, which suited well enough the needs of our fathers, has been discarded, and every college, in proportion to the resources at its command, now offers elective studies, and seeks to meet the needs of differing men. To all who can afford four years, and who are master of about half as much capital as would support them during the same time elsewhere, the four hundred colleges of our country offer an education far too good to be superseded, duplicated, or weakened. In these colleges excellent provision has been made, once for all, for everybody who has a little time and a little money to devote to a systematic education of the higher sort.

"But our educational scheme has one serious limitation, and

during the last fifty years there have been many earnest efforts to surmount it. Not every man is free to seek a systematic training. Multitudes are tied to daily toil, and only in the evening can they consider their own enlargement. Many grow old before the craving for knowledge arises. Many also, with more or less profit, have attended a college, but are glad subsequently to supply those defects of education which the experiences of life relentlessly bring to view. To all these classes, caught in the whirl of affairs, the college does not minister.

"Most persons, especially if novices, work best when under inspection. To learners teachers are generally important. There seems to be still a place in our well-supplied country for an organization which shall arouse a more general desire for knowledge; which shall stand ready to satisfy this desire more cheaply, with less interruption to daily occupation, and, consequently, in ways more fragmentary, than the colleges can; and yet one which shall not leave its pupils alone with books, but shall supply them with the impulse of the living word, and, through writing, discussion, and directed reading, shall economize and render effective the costly hours of learning. Unquestionably there is a field here which the colleges cannot till,—a field whose harvest would enrich us all. But can any other agency till it? To every experiment thus far it has yielded only meagre, brief, and expensive returns. A capital thing it would be to give to the busy that which normally requires time and attention; but how to do it is the question,—how to do it in reality, and not in mere outward seeming.

"Every one, accordingly, civilian or professional, wishes the movement well, and recognizes that the work it proposes to do in our country is not at present performed. Its aims

are excellent. Are they also practicable? We cannot with certainty say that they are not, but it is here that doubts arise, —doubts of three sorts: those which suspect a fundamental difference in the two countries, (England and America,) which try the experiment; those which are incredulous about the permanent response which our people will make to the education offered; and those which question the possibility of securing a stable body of extension teachers.

"With the multitude of other opportunities for education which the American life affords, will any large body of men and women attend extension lectures? Will they attend after the novelty is worn off,—say during the third year? Will they do anything more than attend? Will they follow courses of study, write essays, and pass examinations? Will the extension system, any better than its decayed predecessor, the old lyceum system, resist the demands of popular audiences, and keep itself from slipping out of serious instruction into lively and eloquent entertainment? If the lectures are kept true to their aim of furnishing solid instruction, can they in the long run be paid for? Will it be possible to find in our country clusters of half a dozen towns so grouped and so ready to subscribe to a course of lectures on each day of the week that out of the entire six a living salary can be obtained? Will the new teachers be obliged to confine themselves to the suburbs of large cities, abandoning the scattered dwellers in the country, that portion of our population which is almost the only one at present cut off from tolerable means of culture? If, in order to pursue these destitute ones, correspondence methods are employed, in addition to the already approved methods of lecture instruction, will lowering of the standard follow? In England three or four years of extention lectures are counted equivalent to one year of regular study, and a person who has attended

extension courses for this time may be admitted, without further examination, to the second year of university residence. Will anything of the sort be generally attempted here?

"If the method of the extension lecturer is to be as thorough as that of the universities themselves, the lecturers must be experts, not amateurs; and where, except at the colleges, does a body of experts exist? No doubt many well-trained men are scattered throughout the community as merchants, doctors, school-teachers, and lawyers. But these men, when of proved power, have more than they properly can attend to in their own affairs. It seems to be the colleges, therefore, to which the new movement must look for its teachers; and in the experiments thus far made in this country the extension lecturing has been done for the most part by college officers. A professor of history, political economy, or literature has, in addition to his college teaching, also given a course of instruction elsewhere. This feature of the American system, one may say with confidence, must prove a constant damage to the work of the colleges, and, if persisted in, must ultimately destroy the extension scheme itself.

"Naturally enough, therefore, the organizers of the extension movement, despairing of finding among us competent unattached teachers, have turned at once to the colleges; but the colleges are a very unsafe support to lean upon. A professor in a university where the studies are elective has no more superfluous time than a busy lawyer, or doctor, or business man. Merely to keep up with the literature of a subject, to say nothing of that research and writing which should enlarge its limits, is an enormous task. Teaching, too, is no longer an affair of text books and recitations. Leisurely days of routine ease belonging to the past. A professor, nowadays, must prepare lectures incessantly; must perpetually revise

them; must arrange examinations; direct the reading of his students; receive their theses; himself read a large part of their voluminous written work; personally oversee his advanced men; gather them about him in laboratory, seminary, and conference; attend innumerable committee and faculty meetings; devise legislation for the further development of his college and department; correspond with schools and colleges where his students, after taking their higher degree, may suitably be placed; and if, at the end of a hardworked day, he can find an hour's leisure, he must still keep his door open for students or fellow-officers to enter. So laborious have become the duties of the university teacher that few large staffs now go through a year without one or two of their members breaking down. With the growing complexity of work, it often seems as if the proper business of college officers, study and teaching, must some day cease altogether, crowded out by the multifarious tasks with which they are only indirectly connected. It is useless to say that these things are not necesary. Whoever neglects them will cease to make his college, his subject, and his influence grow. It is because professors now see that they cannot safely neglect them, that the modern college differs fundamentally from its humdrum predecessor of a quarter of a century ago. Any movement which seeks to withdraw a professor's attention from these things, and induces him to put his soul elsewhere, inflicts on the community a serious damage. No amount of intellectual stimulus furnished to little companies here and there can atone for the loss that must fall on education when college teachers pledge themselves to do serious work in other places than in their own libraries and lecture rooms. To be an explorer and a guide in a department of human knowledge is an arduous profession. It admits no half-hearted service.

"Where, then, is such a staff to be obtained? In view of the conditions of education in this country, already described,

it is improbable that it can be obtained at all. But something may still be done,—something, however, of a more modest sort than enthusiasts at present have in mind. There issue from our great universities every year a number of men who have had two or three years' training beyond their bachelor's degree. Some of them have had a year or two of foreign study. They frequently wish to teach. Places do not immediately open to them. If the extension movement would set them to work, it might have all their time, at a moderate salary, for two or three years. Such men, it is true, would be inexperienced, and their connection with itinerant teaching could not be rendered lasting. As soon as one of them proved his power as a teacher, some college would call him; and he would seldom prefer the nomadic and fragmentary life to an established one. Plainly, too, under the charge of such men, the grade of instruction could not be the highest; but it might be sound, inspiriting even, and it is in any case all that present circumstances render possible. We may mourn that those who are masters in their several provinces are already fully employed. We may wish there were a multitude of masters sitting about, ready for enlistment in a missionary undertaking. But there are no such masters. The facts are evident enough; and if the extension movement aims at a durable existence, it will respect these facts. The men it wants it cannot have without damaging them; and, damaging them, it damages the higher education of which they are the guardians. Teachers of a lower grade are at hand, ready to be experimented with. The few experiments already tried have been fairly successful. Let the extension leaders give up all thought of doing here what has been done in England. The principal part of that work is performed for us by other means. The wisest guidance, accordingly, may not lead the movement to any long success. If, however, university extension can keep itself clearly detached from other educational agencies and make a quiet offer of humble

yet serviceable instruction, there is a fair prospect that, by somewhat slow degrees, a permanent new power may be added to the appliances for rendering busy Americans intelligent."

Professor Edmund J. James, of the Wharton School of Finance of the University of Pennsylvania, who is a leader in University Extension Work, writes as follows for the January number of "University Extension." His subject is

"THE UNIVERSITY EXTENSION LECTURER."

"The University Extension lecture cannot be the sort of lecture which is given to college students. We may lay it down, I think, as a fundamental principle that the educational problem involved in University Extension is, at bottom, a very different one, after all, from that involved in university instruction itself; or, at least, that so many of the incidentals connected with it are so different from those connected with university instruction, as to make it essentially a different thing. So fully has this been recognized by the more thoughtful men who have taken part in the University Extension movement, and who have given thought to its possibilities and its circumstances that many of them have maintained that the expression, University Extension itself, is an entirely misleading one, and ought to be discarded for a more appropriate term. I shall not go so far as this, for I think the question of nomenclature, while having a certain importance, is not by any means fundamental. I think, moreover, that the term University Extension has acquired a certain right to be applied to this particular sort of education, and yet it may well be worth our while to call our attention to the fact that the problem after all is different to

that involved in university instruction from several different aspects.

"In the first place, the university lecturer who comes before an audience of university students, knows what to presuppose in the way of previous training. He knows, pretty exactly, if he is a thoughtful and observant man, the general grade of maturity which has been reached by his audience. He knows what they have studied, and how thoroughly, on the whole, they have pursued their studies, so that he is able to take up their education, so to speak, very directly and immediately where he finds it, and to continue it in connection with the subject which he has in hand. The University Extension lecturer, on the other hand, has a very different condition of things to meet, in this respect. His audience, while made up, as a rule, of people who are interested in the work, and are interested in improving themselves intellectually and esthetically, is yet a mixed audience. It consists of people of various ages, of old and young, of people of different sexes, and, often, of different nationalities; and, what is more important than all, of people of very different degrees of education and training. The University Extension lecturer, therefore, can presuppose, one might almost say, next to nothing in regard to the knowledge and training of his audience. He is in very much the same position as the clergyman who comes before audiences made up on very much the same lines as those of the University Extension lecturer; and certainly no one who has studied the problem would doubt, for a moment, that the clergyman's problem, so far as it is educational, is fundamentally a different one from that of the University professor.

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"There is another condition, to my mind, almost as important as that which I have just described and which serves to distinguish very particularly the possibilities of the work in Uni-

versity Extension from those in college and university work itself and that is the length of time at the disposal of the uuiversity lecturer and the University Extension lecturer respectively to produce their various impressions. *Real education is a result of time,* as well as of effort. The time element in education is almost as important, if not quite as important, as in economics; where it forms the fundamental element in the conception of capital. You cannot secure culture and training, you cannot secure those specific things which we connect with the idea of a liberal education within a brief period, no matter how great the effort the individual may put forth. It takes time, in other words, to educate the human being. It takes time to educate and discipline along intellectual and esthetic as well as along moral lines. Not even the warmest believer in and adherent of, the momentary and sudden revolution in character which may come from religious conversion has ever maintained that anything more can be accomplished than a mere facing about of the individual, a turning of the mind and thought and action from one direction to another. Moral culture can only come as the result of time, of long-continued as well as of vigorous effort. So the university man has, under ordinary conditions, at least in our modern institutions of learning, whatever may be true of their English counterparts, a certain length of time, a certain period, during which he has his audience directly and immediately under his control. If he does not succeed in making an impression the first hour, he can take the second hour to present the same thought in a different way. He may take a third hour, if necessary. If he does not succeed in doing it in one week, he can take a second week, or a third week. If he does not accomplish it in one month, he can take a second month, or a third, or even a fourth or fifth. He can make a study, to a certain extent, of the individual students he has before him and with

whom he comes in contact and adapt his work in some degree to the wants of individual members of his class.

"The University Extension lecturer has not the same advantage. He can meet his audience for a dozen times; or, as experience shows, perhaps twice that often, in a given subject, within a year; but experience, both in England and in this country, shows that we cannot hope to get hold of the same audience, on the average, more than a dozen times for the presentation of any subject; or, under very favorable conditions, for more than twenty-four or twenty-five times. The cases in which more than this can be accomplished, at least at present, are rare, and I am inclined to think, from my observation of the circumstances, are likely to continue to be rare for some time to come. The Extension lecturer must, therefore, face the problem of getting a certain number of points before an audience, which he meets, say, once a week for a period of twelve or eighteen weeks. The mere statement of the case shows how different the problem involved in the University Extension lecturer's work and that of the university lecturer.

"There is another side in which the work of the two men is very different. The university lecturer has before him, presumably a set of men and boys who are giving their entire time and attention to the work laid out and required by the college or university. They are supposed to be giving themselves up, completely, to this educational process, which is involved in the curriculum of the institution of learning which they are attending; and, if the claims of society and of athletics or of indolence are sometimes too great to allow the actual realization of this presupposition, yet, on the whole, the university lecturer may fairly count on the bulk of the time of his students being devoted, if not to his work, at least to the general university work of which his branch forms a part. The University Extension lecturer, on the

contrary, has before him a class of people in whose lives his work forms, even if it becomes what we hope to make it—a permanent feature, yet, after all, only one element and, perhaps, as far as time and attention are concerned, by far the smallest of several elements which enter into combination to make up the life of the individuals composing his audience. He finds there the busy man, who gives the bulk of his time and attention, during the day, to speculation on the street or the working of his factory or the manipulations of politics. He finds the woman whose chief attention is absorbed by her household duties, by her charitable works, by her religious offices. He finds the young man or woman, or the boy or girl, whose day is spent in the shop or the counting-house or the factory, and who, therefore, under the most favorable conditions, with the greatest desire in the world to accomplish something valuable and definite, can only give a modicum of his time to this particular work, and, even if we succeed in making, by our University Extension movement in alliance with all the other educational movements of the time, education a serious business of life, comparable in the time and attention which it takes to that which is given to amusement, to the church, to politics; yet, after all, it cannot ever become more than one of these elements and with this fact the University Extension lecturer must reckon.

"Closely allied to this point is the consideration that one of the fundamental objects of college and university instruction is to make scholars, to produce investigators; while the utmost we can hope from University Extension instruction is to raise the line of living by creating an interest in higher things. We often hear it objected to University Extension work that one cannot make scholars by six-lecture courses. This would be a valid objection by anyone, if we claimed we could do so. But no one of the supporters of University Extension ever made such a preposterous claim. Much more can be accomplished in a scholarly direction than one

would suppose who has not taken the trouble to examine carefully what has been actually achieved. The elements of interest, of mental maturity, and the training which actual life gives, go a long way toward making up for the greater concentration and superior elementary training of the college boy. But no one would claim that University Extension work, as such, directly tends to produce scholars, while this ought to be one of the direct tendencies of all college and university instruction. Such a fundamental distinction must differentiate the two grades of work, and will keep them forever on two separate planes.

"I would urge upon the college or university man, who thinks of taking up University Extension work, that he, in doing so, has a new educational problem before him, a problem which will not be thoroughly well solved without the most careful and long-continued attention upon his part. The fact that university men have not kept this circumstance in mind, will account, to a very large extent, for those numerous failures, in one form or another, of the University Extension work which the history of this movement, in England and in this country, has to chronicle and to the large number of attempts, which, while we cannot perhaps denominate them as absolute failures, are certainly not calculated to encourage us to put forth long-continued and renewed efforts along these lines. So much for the University Extension lecture. The University Extension lecturer, in so far, is the man who can give us a lecture which is suited to the conditions which we have sketched above."

NOTES ON UNIVERSITY EXTENSION FROM EDUCA. REVIEW, FEBRUARY, 1892.

"(1) University Extension is, in this country, a misnomer and an experiment. That it has certain great possibilities no intelligent person doubts for a moment; but that it has very distinct limitations every impartial observer must admit.

(2) There is also very distinct danger lest, in the minds of both its managers and its patrons, the instruction it aims to give should be confused with a real education. The movement is not new, it is not 'university;' but it is 'extension.' As a means of systematizing and carrying further along the work of the old lyceum lectures, University Extension, with its syllabuses, its class exercises, and its guided reading, is admirable; as a substitute for a college or even an academic training, it is utterly useless and misleading.

(3) A university education is the crown and top of a liberal general education, and requires that the student should give up the whole of his time for a considerable period (something like three years) to a complete and carefully arranged course of study; the older universities add residence, under college and university discipline. How much of this does the extension scheme attempt? At most it gives twelve lectures—the Oxford scheme sometimes gives only six—and then comes an examination, with a certificate as a result, if both lecturer and examiner agree that one is deserved.

The term University Extension is a misnomer. The teaching is not university teaching, either in general character or in amount, and the subjects are usually just those subjects which the university does not teach to its own regular stu-

dents. Moreover, looked at in one way, it seems almost grotesque to call that an extension which is contracted to the utmost. We know, of course, that the original promoters explain the term to us by saying that their aim is to extend beyond the bounds of the university itself, teaching of the same highly intellectual and learned character as that which is given to the students within those bounds. But it has not been possible to carry out this idea precisely.

(4) Let us not be misunderstood. We are hearty believers in the work done under the name of University Extension. We have had many opportunities of examining into its results and its mode of procedure, and we emphatically pronounce both to be very good. It would be little short of a national calamity were anything to interfere with its progress and its efficiency; it deserves in every way public recognition and support, and is in every way work fitting and honorable for a university to initiate and maintain and direct. But to believe in it heartily is one thing; to proclaim that it is equivalent, or even partly equivalent, to a university education is altogether another."

The foregoing discussions are sufficient, without a systematic analysis of the subject, to bring the problem clearly before us. It is evident that there will be some disappointment in the outcome of this movement. It will not make many profound scholars. Of itself it can hardly make scholars at all, but it may in some cases produce an inspiration which will lead to effort out of which scholarship may grow. If it does its work well it will not foster sensationalism, for the lectures given must be sober and thoughtful. But if it can make an intellectual revolution to the extent of securing the substitution of thinking for mere emotional entertainment, largely reconstructing the mental habits of the people,

the investment will yield a large per cent. It is hoped that this will be one of the benefits secured. No expenditure of time or money would be too large for such a result. This movement goes before the college, on the higher plane it can be made to follow it; but it is not the college and it cannot become the college. If it stirs up the public so that more of the young people shall eagerly desire to make their way to the college in pursuit of thorough scholarship, out from it will come that which is deepest and most elevating. If we wisely prognosticate the future we shall not be disappointed.

THE CHAUTAUQUA MOVEMENT.

WRITTEN FOR THE YEAR BOOK BY BISHOP JOHN H. VINCENT.

The Chautauqua Movement is a phenomenon worthy of careful study. It has, in its various forms, received the highest commendation of leading educators on both sides of the Atlantic, who have made it the subject of special study. The casual observer, who, like Rudyard Kipling, passed through Chautauqua some years ago, spending part of a day, looking through sinister and sensual eyes upon the popular meetings, may not be able to understand even the alphabet of this bold declaration of human rights and prerogatives. The newspaper reporter, who comes under a commission to find humorous and sensational items, certainly will not lay hold of the radical ideas which have made Chautauqua what it is, and which guarantee to Chautauqua permanency and power.

The Chautauqua Assembly, with its summer meetings, is but a small developement of the Chautauqua idea. Without the meeting in the grove, as in Oxford, England, and in Al-

bany, Georgia, and in a score of other places, the Chautauqua idea may find manifestation. It is difficult, however, to estimate fully the value of the out-of-doors element in the Chautauqua movement, but Chautauqua as a force and a philosophy does not depend upon time or place.

The essential ideas which combine to express themselves in the Chautauqua Idea are the following:

1. The application of the scientific method in education to the teaching of the Scriptures and of Sunday-school and other religious teaching-processes;

2. The development and employment of the week-day or secular forces and agencies of society in the interest of religious training—the utilizing of the parlor, the day-school, the playground, the studio, the laboratory, and all other so-called agencies which make up so much of life;

3. The bringing into fellowship for mutual acquaintance and influence, of the representative educators and the out-of-school multitudes, that parents may form larger ideas of the great worth of culture; appreciate more highly the college; covet more earnestly for their children prolonged educational opportunity; and that the professors of science, literature and art, coming into closer contact with the people, may more wisely adapt their instructions in the class-room, and understanding practical life may the better train their pupils for its responsibilities.

4. The opening up to adults, to whom the school-house and college are closed forever, the ample and interesting horizon of the world of letters; the putting into good English the college curriculum, that its great biographical, historical, literary and scientific phenomena may become familiar to parents; that they may see all current literature through new eyes; that they may plan for their children the goodly inheritance of college and university education.

5. The enlarging of the religious ideas of the people, making it plain to them that religion is but a spirit accom-

panying certain great truths, which, apprehended by the whole being, enter into the whole of life; sanctifying and ennobling secular pursuits; giving dignity to kitchen, shop, field and parlor; transforming the humdrum details of every-day life into personal means of grace, media of spiritual power and opportunities for doing untold good.

6. The providing of organizations and devices of various and attractive kinds to develop the *esprit de corps*, and thus to inspire each individual with the feeling that he is one of a great multitude united by holy bonds, intent upon holy aims, and consecrated to holy endeavor. What the class-spirit, the class-songs, the class-rivalry, the class-organizations, the fraternities, the badges, the mottoes, the feasts, the fellowships, the unique and endless friendships—what these are to the college student, the out-of-school adult likewise needs to brighten life, to train living vines over the rude trellis work of secular life, to inspirit him, to kindle his imagination, to warm his sympathies, to put youth again into his old veins. And what the adult needs in this direction, Chautauqua provides.

Thus it will appear that Chautauqua as an idea is independent of Chautauqua as a place; that the movement is the product of radical ideas embracing in their scope home, college, business spheres, religious impulse, and all the high aims of the broadest culture. The Chautauqua Idea is a democratic idea. It strikes a blow at the aristocracy of culture, which would limit educational provisions to men and women of a social class. It is a patriotic idea, as it prepares citizens to appreciate their responsibilities, and with intelligence, independence and conscientiousness to assume and discharge them.

Chautauqua early secured a university charter from the state of New York. It did this for three reasons:

First. To pre-empt a splendid opportunity and prevent the occupation of the ground by irresponsible persons, who,

seeing that the name of Chautauqua had acquired educational value, might be induced themselves to secure a charter which would plant an institution on Chautauqua Lake bearing our cherished name, and yet wholly out of sympathy with us, and beyond our control.

Second. To enable us to develop the higher side of our educational work, and make possible a measure of the opportunities and honors of the college to adults unable to attend a regular institution.

Third. The provision of an object for future benevolence, the possibility of which, having been created by Chautauqua, might express itself in the future in large donations as educational endowments.

Certainly, it was never in the thought of the Chautuaqua leaders to make easier the way of college education. Its standards have from the first been equal to those of the best literary institutions in the world. Its teachers have been selected from the leading colleges and universities, and no one connected intimately with the Chautauqua work itself has the faintest idea that by anything which Chautauqua has done the university standards have been lowered. In no case has a student been enrolled in the Chautauqua office as a member of the College of Liberal Arts who could possibly have attended an institution of learning. It is the mission of Chautauqua to stimulate an interest in the regular institutions, and to increase the number of their students. By the Chautauqua Literary and Scientific Circle, which is the popular reading course, giving the college curriculm as above described, homes throughout the land become familiar with the college world; and already from these homes, enlightened by the reading of the C. L. S. C., have young men and young women gone to the colleges to pursue rigid courses of study, denied to their parents by the circumstances of early life, but made possible to them through the light and enthusiasm imparted by the Chautauqua movement.

It will from all this appear that the most radical University Extension movement, and the one antedating all other University Extension schemes in the United States, is that of Chautauqua. In 1874, in the Biblical and Sunday-school studies of the first Chautauqua Assembly, every distinctive method of the more modern University Extension plan was employed. Serial lectures, printed syllabuses, conferences, quizzes, and class drills, with final written competitive examinations. And all this was but the reproduction of the same scheme for the study of sacred history and archæology, applied by one or more of the Chautauqua leaders nearly twenty years before Chautauqua itself was opened. In all departments of Chautauqua, of science, history, literature, art, language and the Bible, University Extension under university men has been a leading feature.

There is much food for thought in the following, on certain dangerous tendencies in education. We apprehend that many of our readers will not quite agree with the author that there is necessarily such a radical difference between the home and the school. In government they do differ somewhat, perhaps they must differ to some extent, yet with a common underlying reality. On the scholarship side—the operation of the forces leading up to knowledge—there surely are not two antagonistic principles. There is nothing dogmatic in the scholastic spirit, it is not lordly but inquisitive. It forgets the achievements made in the eager search for something more. It is an intense continuous gaze into the unknown, that it may become the known. It is an interrogation, not a deduction: that is, to the real scholar the unknown seems a much larger world than the known; and if a teacher, he is a true student along with his pupil. To advise, to counsel, to tread the same path with the pupil, a companion rath-

er than an autocrat, such should be, and such is the life of the teacher of the best make.

The condemnation of the socialistic spirit that belittles and almost annihilates the individual, which makes the state all, is fully deserved. To such a spirit the parent may not yield without committing the darkest crime against humanity. The foundation of all obligations exists in the family. Unless this is conceded, society in its best and noblest life is shattered.

The considerations presented in regard to the kindergarten system deserve serious thought. How much of the kindergarten method to employ; how long to continue it with each child; when to shade off into the more serious, there is much here requiring sober thought. In mature years we must, if much is accomplished, grapple with great interests which tax our energies and leave but little room for the play side of life. Hence there is a deep problem here, which needs keen insight to solve. We have none too much light and joyousness in our life, and we surely have not too much earnestness to make the state stable and society vigorous. We do not appreciate enough the gravity of the responsibilities of the passing days. Is there any blame attaching to the schools? Could we get down deeper in our school life?

CERTAIN DANGEROUS TENDENCIES IN EDUCATION.

BY JAMES P. MONROE, EDUCA. REVIEW, FEBRUARY, 1892.

We are now under the full influence of a great movement of thought, essentially socialistic in character. In time we shall be carried, by the wave-like progress of humanity, to an

extreme of individualism; but, until this corrective tendency sets in, it behooves us to see how far the present movement will carry us. In many of its results a socialistic trend is beneficial. Some of its immediate effects, now so portentous, will quickly disappear. But at several points its influence has been decidedly bad. One of the social problems deeply effected by it is that of public education. Here the socialistic factor in human progress is spreading out of safe bounds into the region of wild experiment, with grave menace to our government.

Education is man's safeguard against his own ignorance. Ignorance and idleness are usually synonymous, and idleness is the mother of crime. Give a child a proper education, and he is endowed with power; power to think, power to act. He may use his power to think and act wrongly, but experience shows that he will think and act mainly towards the right. Since to the state, crime, when it preponderates, is death.

Schools are a necessity. But this necessity conceded, what sort of education is to be given freely, and how far is it to go? It is here that the socialistic tendency is, in my judgment, dangerous. The socialists and those who in the line of education, if in no other, are socialists, would burden the free school with subjects and methods belonging to the home, and would carry free education to the time of life when, by the expression of individual effort, moral stamania are weakened, and when as a measure of common safety, school education is no longer necessary.

The home and the school are too wholly different forces brought to bear upon the growing child. Each has its proper sphere, and the methods of the one have no place in the system of the other. Judiciously exerted, one supplementing the other, these two influences should produce patriotic, moral, well-behaved citizens. No argument is needed to prove the unfitness of school methods to home training; there

should be no need of proof that home methods have little or no place in the school. The child, whose parents treat him from the standpoint of the pedagogue, is a pitiful creature, starved morally, surfeited mentally. A child who has been trained in a "home" school, by methods which have no right beyond the walls of a house, is even less fitted for good citizenship. Home training should be always indirect, persuasive; school training direct, authoritative. Home training must be suggestive; school training mandatory. Home training should be mainly by example; school training by fact and precept. Home training must leave free play to the child's mental growth; school training must prune and control that growth. The home fits the child to be a man, the school prepares him to be a citizen; one is natural, common to humanity, the other artificial, peculiar to the state. It is seldom that the proper combination of these elements is reached. The scholastics took away love, making morality an abstraction; the sentimentalists, whose heirs we are, took away duty, making morality a passion. The right moral training tempers love with duty and duty with love. This moral training can be perfected only within the home. School life is but a mental gymnasium in which to make the child receptive and acquisitive.

To emphasize this training, the home must be made the center of the child's existence. No stronger force exists to make it so than the double one of sacrifice and gratitude, the force of mutual obligation. There should be always present a sense of duty on the part of the parent, to give the child such mental and moral armor as he can; and a corresponding sense of obligation on the part of the child to repay the self-denial of the parent by exertion to do his will.

But the socialistic idea of education destroys completely all necessity for sacrifice on the part of the parent, and all motive, therefore, for gratitude on the part of the child, and in time all motive for that child, grown to maturity in igno-

rance of filial gratitude, to interest himself, much less to sacrifice himself in the matter of his children's education. The tendency of the modern school is to restrict the duty of the parent to that of feeding and clothing the child. The father is to become a mere machine to supply the material wants of the next generation. All higher duties to be relegated to a special class, just as in the Middle Ages they were given to the priests. Destroy parental responsibility and the one concrete motive for human progress has disappeared. The French noblesse, sending their infants to the peasant foster mothers, brought themselves thereby to the guillotine. Abstract precepts, the knowledge of rigth and wrong, will never supplant, as moral forces, the actual presence of children, to whom ethics must be taught by example. If the state, that nonentity for which each one of us, and therefore none of us, is responsible, is to bring up my children for me; if morality, good manners, and the domestic virtues are to be taught by some one else, while I am but to provide the material things of life; then, forsooth, I will lay aside such sums as may meet these temporal wants, and with the balance, large or small, will eat, drink and be merry; for surely I have no better use in the world. The fact that in a few generations the state will fall to pieces is not for me to consider, since I am creditably informed that the sacred duty of maintaining it is taught by the schools. This wicked and absurd result of socialism is, of course, extreme. There are, fortunately, human tendencies retarding such a mad career as this. Of these are avarice, making us save even when there is no direct motive for saving; family pride, unwilling to resign the task of shaping its heirs; and, above all, parental love, refusing to deny itself to its offspring.

Socialism in school matters is, beyond its narrowest interpretation, wholly without warrant. Once having established the machinery of free schools, once having placed proper safeguards for its maintainance and protection, the state

should determine the least that it must do to preserve its integrity and provide for its healthy growth. It should then rigidly exclude from the school all that belongs to the parent, as well as all that, being non-essential to the life of the state, ought to be left to individual effort. In following this course there can be no rigidity of rule. So diverse is our population that no general system of public education is possible. The hordes of immigrants, low and brutish, must be upheld by the strong arm of the majority through so many generations as it may require to bring them, mentally and morally, to the level of the older population. For them a socialistic scheme of education must be arranged under which they are to be brought by force or by persuasion. But for all rural districts, for many of the smaller cities, and for the better wards of large cities—in all of which regions the good outweighs the bad—the integrity of the family must not be disturbed, honorable ambition must be encouraged, and the school must be kept in its proper sphere. Otherwise our republic will be of short duration.

Having suggested wherein the tendency in education seems wrong from the economic standpoint, I will look at it briefly from the pedagogic point of view. The kindergarten system, upon which much of the modern method of teaching rests, is built upon a profound appreciation of child-nature, and it has done much to free education from the fetters of monasticism. It has helped to broaden humanity and to make political freedom possible. But, like all good influences, it has, when carried to excess, its evil tendency. Child-nature is joyous, active, inquiring; the kindergarten, by its games, its dances, its handiwork, and its nature study, takes advantage of these attributes to develop the child and lead him unconsciously to study and to application; but, in so doing, it loses sight of the fact that in this age of joy, of activity, of development, the power of habit is exerting itself even more strongly than in adult life, both because of the

moral weakness of the child and through his natural tendency towards imitation. The kindergarten influence, being in the main but systematized and graduated play, is becoming a fixed habit of mind. All things appear to the child in the false, play-work light, and he acquires what I must call, for want of a better word, the dilettante spirit. The play atmosphere follows him through life, and takes from him the blessing of earnestness, without which the hard duties of life would be unbearable. With all their shortcomings, the Puritans possessed in a marked degree the earnest spirit, and it alone enabled them to conquer the wilderness and found the United States. The same spirit in their descendants preserved the integrity of the Union.

A lack of earnestness is the forerunner of political decay. This half-heartedness seems to me apparent in many of the youth of the present day, especially in those who have been subjected to the emasculating courses of certain of the private schools, where the child is carried forward from one kindergarten to another, through a kindergarten botany, a kindergarten mineralogy, a kindergarten artizanship, a kindergarten system of ethics and religion. The public schools, having no ease-loving community to bid for, have not gone to such lengths as this, but in much of their work is seen the influence that puts the immediate pleasure of the child, the pleasure that weakens him mentally and morally, before the the discipline, which, if he is to hold his own in the struggle for existence, must be ready with its armed and trained faculties before his legal school age is past.

Finally, and herein is the fundamental error, there is too much surface and too little depth to the ordinary primary and grammar school course. Education is made an end rather than a means. It is not what we teach, it is how we teach that is essential. In attempting to improve the public schools the mistake has been made of increasing the curriculum instead of the teaching force. Given the tools of read-

ing, writing, and figuring, the good teacher will make one further study, if need be, serve every purpose of primary education. The mental vice of these newspaper days is superficiality; this vice the schools are doing much to encourage. Make the child accurate, thorough, persistent, logical, and let mere information take a secondary place. If he has acquired these qualities, he has learned how to study; in teaching him how to study the school has done its work. Beyond giving him the tools of knowledge, the primary teaching can do little towards increasing the child's stock of information. That will come to him outside the class-room. As said above, and as cannot be too often said, the school is the mental gymnasium for making the child's mind acquisitive and receptive. The teaching of many subjects does not conduce to this. The immature brain is naturally restless and roving; it is for the school to give it the power of concentration. A child's mind is impatient and easily diverted; it is for the school to teach it patience and perseverance. A hasty clutching at many things is easier and pleasanter, to both teacher and pupil, than thorough mastering of one thing; but the child who has really conquered one subject is he who, in manhood, will win the knowledge of a thousand.

1. THE GERMAN GYMNASIUM. 2. THE AMERICAN COLLEGE.

PROFESSOR FREDERICK LUTZ.

The schools generally called Gymnasia are of very ancient origin. The name Gymnasium reminds us of the Greek Gymnasium which was used primarily for the training of the physical man, but we learn from Plato's description of it that Socrates used it also very effectively for the training of the mind. It is of this second use of the word that the Germans availed themselves for their purpose.

The germs of these schools may, perhaps, be found as far back as in the Convent schools of the time of Charlemagne, and earlier. This ever-stirring and far-seeing emperor beholding with alarm, perchance, the depth of ignorance of his clergy decided to establish convent schools throughout his vast realm for the education of the priests and teachers. It is true the instruction in those schools was very limited. The branches taught were the well-known studies comprised in the trivium (grammar, dialectics, rhetoric) and the quadrivium (arithmetic, geometry, music, astronomy). The classics were also pursued and Latin was studied for the use of the church. Alcuin was called from England and he exerted a benign influence on education. The convent school at Fulda, founded in 813, still exists to-day in the modified form of a Gymnasium.

Education was in the hands of the clergy, but soon the magistrates of cities began to establish schools. The city of Breslau founded two Latin schools, not without considerable opposition from the clergy, one in 1267 and the other in 1293, which are now Gymnasia.

The schools grew under the influence of the universities, especially since the XIV century.

About this time there were many Italian men of fame who wrote Latin more easily than they did their own vernacular. The classical studies were revived in Italy and men eager in their pursuit of knowledge flocked to Italy. Germans went to Italy and returned to enrich their fatherland with their rich treasures.

This revival of the classical studies was of an inestimable value for education and reformation.

The Humanists and Reformers (Erasmus, Reuchlin, Melanchthon, Luther, etc.) organized the humanistic gymnasium. Men like John Sturm directed many of these schools. But in time the one-sided study of the classics degenerated into formalism. This lifeless spirit was opposed by Ratichius and Commenius, the forerunners of the realistic movement in the XVIII century. In some of these Gymnasia Greek was banished and French substituted for it, especially in schools for young nobles. But by the efforts of J. M. Gesner and Ernesti the study of the classics revived again while at the same time the Pietists, especially A. H. Franche, established a number of flourishing schools in Halle, which were to consider the needs of real life. J. S. Semler, inspired by Franche, opened the first Real School in 1706, with the full title "A mechanical and mathematical Real School." But this school passed away in a short time. In 1747, however, the first actual Real School was established by J. J. Hecker in Berlin. Then came Philanthropists' movement under Basedows. The main object of this method is the systematic education of a youth to a man in the full sense of the word. The will was to be guided by reason. But the Humanists' Gymnasium obtains on the whole up to the present day, though some concessions are made by the introduction of modern studies. The Real Gymnasia, likewise, have come to stay; both working side by side and performing their noble missions. It would be unjust not to mention the glorious fact that Prussia in her greatest political distress turned her

eyes on education. It is during this century that secondary education has reached its present excellent state, though even now much remains to be done.

According to the decree of March 31, 1882, Prussian High Schools are divided as follows:

1. Gymnasialanstalten { Gymnasien with nine years' course. / Progymnasia with seven years' course.
2. Reallchranstalten { With Latin { Realgymnasien with nine years' course. / Realprogymnasien with seven years' course. / Without Latin { Oberrealschulen with nine years' course. / Realschulen, with seven years' course.
3. Hohere Burgerschulen—without Latin.—Six years' course.

The essential characteristic of the secondary schools, according to Dr. Wiese, is neither instruction in foreign languages, nor final examinations, nor special privileges. The common school prepares for the secondary schools. The secondary school gives instruction going beyond the needs of daily life. The secondary school gives a course of instruction of a more general character and fits for the university. The secondary school aims at giving a sound basis of scientific and literary education, which enables a man to participate in the higher tasks of life in state, church, and society.

The Gymnasia are the regular preparatory schools for the universities, though the students of these institutions are also admitted to the higher technical schools.

The Realgymnasia fits for the higher technical school, though their students are now also admitted to the universities.

The Progymnasia are Gymnasia without the Prima. The relation between Realprogymnasia and Realgymnasia is the same as that between Progymnasia and Gymnasia. The Oberrealschule has two classes more than the Realschule.

It will be seen from the following list of studies and the weekly division of time, that the Gymnasia devote more time to the classics than the other secondary schools, but these latter devote more time to modern languages, natural sciences and mathematics.

GYMNASIEN.

	VI	V	IV	IIIb	IIIa	IIb	IIa	Ib	Ia	Sa
Religion	3	2	2	2	2	2	2	2	2	19
German	3	2	2	2	2	2	2	3	3	21
Latin	9	9	9	9	9	8	8	8	8	77
Greek	.	.	.	7	7	7	7	6	6	40
Hebrew	.	.	.	.	.	(2	2	2	2	8)
French	.	4	5	2	2	2	2	2	2	21
English	.	.	.	.	.	(2	2	2	2	8)
Polish	.	.	.	.	.	.	.	.	.	..
Hist. & Geog.	3	3	4	3	3	3	3	3	3	28
Mathematics	4	4	4	3	3	4	4	4	4	34
Nat. Hist.	2	2	2	2	2	.	.	.	.	10
Physics	.	.	.	.	.	2	2	2	2	8
Penmanship	2	2	2	.	.	.	.	.	.	6
Drawing	2	2	2	.	.	.	.	.	.	6
	28	30	30	30	30	30	30	30	30	

REALGYMNASIA.

	VI	V	IV	IIIb	IIIa	IIb	IIa	Ib	Ia	Sa
Religion	3	2	2	2	2	2	2	2	2	19
German	3	3	3	3	3	3	3	3	3	27
Latin	8	7	7	6	6	5	5	5	5	54
French		5	5	4	4	4	4	4	4	34
English	.	.	.	4	4	3	3	3	3	20
Hist. & Geog.	3	3	4	4	4	3	3	3	3	20
Mathematics	5	4	5	5	5	5	5	5	5	44
Nat. History	2	2	2	2	2	2	.	.	.	12
Physics	.	.	.	.	.	3	3	3	3	12
Chemistry	.	.	.	.	.	.	2	2	2	6
Penmanship	2	2	.	.	.	.	.	.	.	4
Drawing	2	2	2	2	2	2	2	2	2	18
	28	30	30	32	32	32	32	32	32	

OBERREALSCHULER.

	VI	V	IV	IIIb	IIIa	IIb	IIa	Ib	Ia	Sa
Religion	3	2	2	2	2	2	2	2	2	19
German	4	4	4	3	3	3	3	3	3	30
French	8	8	8	6	6	5	5	5	5	56
English	.	.	.	5	5	4	4	4	4	26
Hist. & Geog.	3	3	4	4	4	3	3	3	3	30
Mathematics	5	6	6	6	6	5	5	5	5	49
Nat. Hist.	2	2	2	2	2	3	.	.	.	13
Physics	.	.	.	.	.	4	4	3	3	14
Chemistry	.	.	.	.	.	.	3	3	3	9
Penmanship	2	2	2	.	.	.	.	.	.	6
Drawing	2	2	2	2	2	3	3	4	4	24
	29	29	30	30	30	32	32	32	32	

HIGHER BURGHER-SCHOOL.

	VI	V	IV	III	II	I	Sa
Religion	3	2	2	2	2	2	13
German	4	4	4	3	3	3	21
French	8	8	8	6	5	5	40
English	.	.	.	5	4	4	13
Hist. and Geog.	3	3	4	4	4	4	22
Mathematics	4	5	5	5	5	5	29
Natural History	2	3	3	3	2	.	13
Physics	.	.	.	.	3	5	8
Penmanship	3	3	2	.	.	.	8
Drawing	2	2	2	2	2	2	12
	29	30	30	30	30	30	

The requirements for admission to the lowest class of a secondary school are as follows: The applicant must have the age of nine, must be able to read, know the parts of speech, write legibly, be able to write from dictation without making any serious orthographical blunders, be up in the four

fundamental rules of arithmetic, and be familiar with the history of the Old and New Testaments.

The three lower classes are called Sexta, Quinta, Quarta, the next six ascending classes are lower Tertia, upper Tertia; lower Secunda, upper Secunda; lower Prima, upper Prima.

Admission and promotion usually take place once per year, the former at the beginning, the latter at the close of the school year. The number of students in the lower classes is limited to 50, in the middle classes to 40, and in the higher classes to 40.

All schools without regard to denomination are subject to the royal minister for ecclesiastical, educational and medical affairs.

Prussia taking a leading position in the empire, let us follow her in her school system, though some smaller states out strip her in matters of education.

Each province has its provincial school-board; the head of which is the president of the province. The duties of this board are, (1,) to decide all questions referring to the educational aim of these schools; (2,) to examine the students; (3,) to examine new rules and regulations and revise existing ones, to regulate, discipline, to make suitable proposals to the ministry for correcting abuses; (4,) to examine the textbooks; (5,) to prepare new textbooks and to introduce them with the minister's sanction; (6,) to appoint examining committees for the final examinations and to examine the transactions of the committees; (7,) to superintend those schools that send pupils to the university; (8,) to appoint, promote, discipline, suspend, and dismiss teachers. Every three years a report is to be made to the royal ministry.

Further statements in regard to the German Gymnasium and a comparison of the same with the American college must, from lack of space, be deferred till our next issue.

* Dr. L. Wiese's Rules and Regulations for the High Schools in Prussia, Sanders Lexikon der Pasdagogik and the Circular on the History of secondary education in Germany were used for this article.

We introduce a few papers prepared by students in connection with the studies of research classes, merely to illustrate the work done. The opinions on the several questions are simply those of the individual pupils, and these papers are not printed because of positions taken. A large amount of independent study is carried forward at the college beyond the ordinary recitation and lecture range.

WHAT IS TO BE THE OUTCOME OF THE SILVER AGITATION?

BY SMITH BURNHAM.

[During the fall term of this year the research class in Economics took up the Silver Question in its various aspects, and papers were prepared discussing International Bimetalism, the Bland Bill, the Silver Bill of 1890, the probable effects of free coinage, etc. Mr. Burnham's essay, which is here printed in somewhat abridged form, was rather political than economic, being an effort to predict the probable outcome of the whole movement in favor of silver. It of course takes for granted the more purely economic conclusions of the papers which had preceded it.]

For ages past all civilized peoples have recognized gold and silver as pre-eminently the money metals of the world. The almost universal recognition of their utility and intrinsic value, and their common properties of portability, indestructibility, homogenity, divisibility, stability of value, and the ease with which they are recognized have won and held this position for them against all competitors. Until comparatively recent times the parity of the two metals has received almost as general a recognition. True, in accordance with Gresham's Law, they have not always circulated concurrently. Yet no general movement for the demonetization of either had shown itself previous to the dawn of the nineteenth cen-

tury. But within the present century, and largely within the present generation, silver has fallen from its high estate. England led in its debasement by the adoption in 1816 of a strictly monometallic system of coinage with gold as a standard. In 1873 Germany followed with the demonetization of of its silver, and by the coinage act of the same year the United States virtually did the same thing. In 1874 limitations were imposed upon the coinage of silver in France, Belgium, Switzerland, and Italy, the countries composing the Latin Union, and in 1878 these countries closed their mints against it entirely. Thus by degrees has silver been losing its former equality with gold.

Is the debasement of silver to be permanent, or will there be a general restoration of it to a legal equality with gold? In other words, will there be a general restoration of a bimetallic standard, or will there be a general acceptance of a gold standard with silver for subsidiary coinage only? It will be the first object of this study to seek an answer to the above question. Having found it, we shall seek by a study of the political forces at work in this country to predict the legislation, if any, by which the United States will ultimately bring its monetary system into harmony with the conclusion reached in the answer to the first question, and to consider the economic results of such possible legislation.

The concurrent opening of the mints of the great commercial powers of the world for the free and unlimited coinage of both gold and silver at a common ratio and with full legal tender faculty for each metal is regarded by almost every writer of the bimetallic school as the only practicable method of securing the permanent restoration of silver to a parity with gold. Is such an international agreement possible? All attempts to reach it in the past have failed for want of co-operation on the part of England and Germany. These countries hold the key to the situation. The fate of silver is in their hands. It seems to be generally recognized that

Germany will follow the lead of England in the matter. What, then, is the attitude of England toward the proposed Monetary Union? Charles W. Freemantle, the delegate of Great Britain to the International Monetary Conference of 1881, states it in the following official declaration, "The monetary system of the United Kingdom since 1816, that is to say for more than sixty years, has rested on gold as a single standard, and this system has satisfied all the needs of the country without giving rise to those disadvantages which have shown themselves elsewhere and under other monetary regulations; and for these reasons it has been accepted by the Governments of all parties and by the nation." Does it seem probable that a people so conservative as the English will set aside a system that "for more than sixty years has satisfied all the needs of the country without giving rise to the disadvantages that have shown themselves under other monetary regulations?" Both the advocate of free silver and the gold monometallist in this country think not. Speaking for the former, Senator Regan says, "Great Britain and Germany have shown that they do not intend to agree to an international silver coinage," and representing the latter Prof. MacVane of Harvard remarks, "There is little prospect of any international compact. Great Britain and Germany are unwilling to abandon the gold standard." These opinions are confirmed by the following statement in the last annual message of President Harrison: "I have endeavored by the use of official and unofficial agencies to keep a close watch upon the state of public sentiment in Europe upon this question, and have not found it to be such as to justify me in proposing an International Conference." This brings us to an answer to our first question. If there is little or no probability of international action, and if without such action all attempts to preserve the equality of gold and silver will prove futile, the inevitable conclusion is that the fall from place, of silver, is permanent, that gold monometal-

lism with silver for subsidiary coinage will be the system of the future, and that gradually the great commercial powers will bring their monetary systems into harmony with it.

Let us now examine the status of silver in the United States. The silver law of July 14, 1890 provides that the Secretary of the Treasury shall purchase 4,500,000 ounces of silver per month, or so much thereof as may be offered in each month, at the market price, and shall issue to pay for it Treasury Notes redeemable in coin, and a legal tender in the payment of all debts, public and private, except where otherwise expressly stipulated in the contract. It further provides for the coinage of 2,000,000 ounces per month until July 1, 1891, and after that so much as may be necessary for the redemption of the Treasury Notes. A brief study of the situation under this law will be sufficient to establish the fact that we now have a gold standard. Gold alone combines with the legal tender faculty perfect freedom of coinage. Gold alone will buy as much as bullion as it will as coin. It is by the gold dollar alone that the value of every bushel of grain, of every pound of cotton, of every product of our manufacturing industry is measured. With it the capitalist measures his income, and the laborer his wages. It determines the weight of the obligation of every debtor in the country. The silver dollar, on the other hand, is wanting in the attributes of a standard coin. What is a silver dollar? It is a piece of silver worth in the market about seventy cents which is called a dollar because that name has been stamped upon it by the Government, and which passes for a dollar in the trade of the county because the man who receives it believes that he can get a gold dollar for it if he so desires. In other words, it circulates side by side with standard gold coin because it is virtually redeemable in standard gold coin. The silver dollar is representation money only.

If the present status of silver in this country is to be per-

manent the object of this study has been attained. But its permanence is far from assured. It is quite possible that this nation entering by the gate-way of the free coinage of silver will choose to wander once more for a time along the shifting and dangerous path of bimetallism before it decides to travel permanently that monetary highway whose road-bed is laid upon the solid rock of of a monometallic standard. If silver is not restored to perfect freedom of coinage it will certainly be through no lack of zeal on the part of its friends. With voice and vote they are doing their utmost to bring about this result. To hear them, we have only to listen. From the far West the millionaire owners of the bonanza silver mines tell us of their deep solicitude lest the toiling millions shall suffer from a contraction of the currency. Many of the leaders of the Democratic party outside New England and the Eastern Stares are not far behind the silver kings in their denunciation of the present coinage laws, and in their demands for more money for the people. The combined efforts of the two have met with a large measure of success. The greater part of the people in the South and West have apparently been misled and deluded into the belief that they will be promoting their best interests by voting for a measure which will enable them to pay their present debts in cheap money, or in other words in depreciated coin. The condition of the agricultural classes renders them peculiarly susceptible to the arguments of the pro-silver men. Dissatisfied with the low prices of farm products that have prevailed during the last five years, many of them deeply in debt, they are in a condition which makes it very easy for them to believe the demagogue who tells them that their ills are due to the scarcity of a circulating medium, and that the remedy may be found in the free coinage of silver. Only the future can decide whether the friends of silver will be able to muster enough votes to control both houses of Congress and elect a President and thus carry out their policy. It seems ex-

tremely improbable that they will be able to elect a President this year, but it is possible that they may be able to do so in the not distant future. But if they shall ever succeed in accomplishing their purpose to open our mint to silver on equal terms with gold, this country will be very near the time when its monetary system will be finally placed upon the solid and enduring basis of gold monometallism.

Let us see how this end would be brought about. If an act for the free and unlimited coinage of silver should be passed, what would it mean to the country? In the first place it would mean that 371¼ grains of pure silver coined into a dollar would have no greater purchasing value than 371¼ grains of silver bullion. Unless freedom of coinage should cause such a rise in the price of silver as to immediately destroy the difference between the market and coinage values of the white metal, a result which we do not think possible, gold would inevitably sell at a premium or be driven from circulation and from the country. But what would be the meaning of a premium on gold? Permit me to answer this question with a sentence from an editorial in a recent number of the *Pittsburgh Dispatch*, a sentence which seems to me to hit the nail exactly upon the head. "The real gist of the question," says the editor, "is that the creation of the premium on gold—or the reduction of the unit of value in the same proportion—be it ten, fifteen, or twenty-five per cent means taking away exactly that percentage from the existing creditors of the country, including savings banks, depositors and small investors in railway mortgages, and giving it to the debtors, including the railway corporations with their $5,000,000,000 of debts." With free coinage the silver dollar would become the standard of value, and the whole business of the country would be at once placed upon a silver basis, causing such an unsettlement of prices as would, when combined with the sudden contraction of the currency due to the withdrawal of gold, produce a great commercial

panic. A very short experience of this nature would be sufficient to convince the people that they had committed a most egregious blunder in adopting the free coinage of silver.

If adopted at all, free coinage of silver will be adopted because a majority of the people have been misled and deluded in regard to its results. These once clearly perceived, and they will soon be so apparent that a wayfaring man, though a fool, cannot mistake them, there will come such a revulsion of public opinion as the country has never witnessed. A great wave of popular sentiment in favor of honest money will sweep away the sophistries of the pro-silver men, and Congress, obeying the command of the people, will place our monetary system upon a gold basis and place it there to stay. Silver will resume its proper place in a purely subsidiary coinage.

Future ages, with changed conditions, may bring new monetary problems, but when the goal of a single gold standard is finally and permanently reached, as surely it will be, either by a continuation of the present policy, or by the shorter though more costly course of an experiment with free silver, the present cycle in the monetary history of the United States will be completed.

The following consists of two extracts from an essay read in the English Masterpiece course in the winter term:

SHAKESPEARE'S HENRY V.

DAVID ARTHUR HUGHES.

There is a moment of crowning interest in the life history of the humblest herb; the little self of the tiniest plant expends its lowly vigor for that supreme moment, the period of bloom;

and the chestnut, the maple, the mountain ash, the larch, and the sturdy oak, monarch of the forest, all succor their mighty energies that they may bud and blossom. The play under consideration marks the flowering season of the immortal genius of Shakespeare.

The poet was now aged forty, matured in power; his mind aflame with oceanic thought; his fancy playful as the ripples on a glassy river on a calm day in June, breathless and intangible as a phantasmagoria, as dreamy as the dark coverlet of night in which Queen Mab rode her fairy horses and emblazoned chariot, etherial as a cloud, frolicsome as the gusts of a summer wind, and with all that its offspring was lovely, sight-worthy and amusing. His spirit, at this the efflorescence of his life, was that of the man of mind, extraordinary, marvellous, and acknowledged to be far above contemporary spirits. It was but twice twelve months before Shakespeare's arrival in London that Spencer's poetic allegory was given to his countrymen. The poem was sweet in figures, perfumed with fantasy, scented and murky perhaps with the classic spirit of Greece and Rome. Spencer may have had the antithetical elements of a wise fool. He taught the people, distended the fences of our literature, but his Euphuism make him stoop to flattery. Raleigh's works are like jack straws, and his history is very mouldy and musty. Marlowe's language is praise worthy, the effect of his spectacles is as the crash of a thunderbolt, but his heroes are sadtyrs an devils:

"Black as night,
Fierce as the furies, terrible as hell."

Ben Jonson's dramatis personæ, in their stage behavior, like an icicle on a cold day, stay in one cold, fixed shape or mode; they keep a paltry and ephemeral humour of men instead of having variability of character and motive, and the play is hampered by law, like a man with his head in the pillory and his feet in the stocks. Green, who sneered at

Shakespeare as an upstart and a raven, is not as verdant as his name. Beaumont and Fletcher's dramas are too immoral, and too loathsome, to allow their interest to roll on with the ages. But the spirit of Shakespeare is the spirit of the universe, "he was not of an age but for all time," and compared with the contemporary dramatists, they must be looked at as through a telescope, while we see him with the naked eye; they are asteriods, he is a planet. Some of the lesser lights, rush lights and sulphur matches had burned out, rare Ben Jonson kept flickering, but it was mid-day with Sun Shakespeare. His understanding at this moment of his life was as the latitude and longitude of the universe; his knowledge was of men, of nature and of God; and he caught the image of soul and character as if reflected on burnished steel, or entrapped by the sensitive plate of the photographer. The mind of Shakespeare revelled in images, varying in brilliancy like an eternal panorama, and they flashed into his imagination with the speed of lightning, and glowed before him like the furnace fire heated to intense whiteness. His memory is tenacious above all men. He observed the acts of men in this earthly theatre, he saw the philosophy of their actions, noted it down and was satisfied. And his heart is as a giant well which takes in the springs of feeling of the whole realm of England. Such was Shakespeare in the year of our Lord 1600, at the moment of the blossoming of his matured art.

It has been the fault of some worthy friends of Shakespeare, as Samuel Taylor Coleridge, Victor Hugo and Thomas De Quincy, to almost deify the great dramatist. In their admiration for his genius, which is little short of worship, they attribute to him almost superhuman faculties. Not so! It was not so! Shakespeare was a man among men the same as us all. He fought the hard fight. He struggled for existence. He stood in the world a sceptred potentate, but

when dead his grave was as low as the lowest. He had the same passion and the same prejudice as any man. His prejudice is shown in this play, for the French are not Frenchmen they are only their phantoms. They are outlined, cartooned, and caricatured, but not even impersonated. The king has some points of sterling masculineness, but I would not say this of his fellow countrymen in the play; the Dauphin, the Constable, the Lords, and Pistol's captive, are as abstract characters as are found in the miracle plays of the Middle Ages. I would be loath to call them persons—for they are not characters; they have not character but only qualities. Verily Shakespeare was a man, or else the French would not be as lame in their make-up as a cripple. It is not patriotism to disparage the manly qualities of another people, it is prejudice. Shakespeare was prejudiced, he was of the brotherhood of men in that point. It would have been better if he had done more justice to the French, and the play would have been of more worth as a piece of art. As it is, the drama, when compared with Othello, Macbeth and Hamlet, becomes secondary—their psychological characteristics are stronger, but if Henry V were not one-sided it would stand in equality with them, differing only from them the same as the brassy-looking gold from California differs from gold of a deeper yellow, nevertheless both would be equal in worth for both would be gold.

Princess Katherine is introduced only twice: once, in act three, and once in the last act. The first time the scene is an interlude, the last time it is the conclusion of the drama. Katherine is simple, silly, sentimental, petty, but a true piece of court feminality. Her wit consists of giggles, gabbles, blushes, embarassments and flippancy. She acts like a spoiled child, but her beauty charms like music. Her giddiness does but little effect us, but her comeliness captivates, like the solemn, quivering sound from the lyre of Sappho.

Shakespeare paints the character of the English with truth

and veracity. Pistol, Nym and Bardolph, the first of the low characters, are natural hypocrites and sham soldiers. Ancient Pistol is a seraph of shame and a scoundrel; his boasts are like the bursts of puff balls—they never harm; and his anger is as free from mischief as blank cartridges, that is, he cocks his pistol and flashes fire, and that's all there is to it. There is no bravery about him, for he was not made to fight. He likes golden pennies; he likes to talk; gain is his watch-word, cash is his end. His motto:

"Let us to France! Like horse leeches, my boys
To suck, to suck, the very blood to suck!"

—"For I shall subtler be
Unto the camp, and profits will accrue."

Nym is an out and out coward. He wouldn't hurt a gnat. He barks like a pup, but his wrath is as short lived as a squib or a fire-cracker. He and Bardolph are cronies in the pilfering line. "They will steal anything and call it—purchase." Clothes have everything to do with these fellows, they are dressed in regimentals as king's soldiers, but the garments they ought to have on are hilariously swinging in the breeze before a pawn-broker's shop in the Metropolis. Bardolph reminds me of Bobadil in Ben Jonson's "Every Man in His Humour." His oaths are always, "as I'm a soldier," "by my sword," etc. He was an ugly, fiery faced villain, "all bubunkles, and whelks and knobs and flames of fire; and his lips plows at the nose, and is like a coal of fire, sometimes blue and sometimes red." Falstaff once saw a flea on his nose and said it was "a black soul burning in hell." He is a mock hero. He would like to pass for a gallant, but he is a drowsy tippler and low sneak-thief. Both he and Nym are executed for robbing a church. From the epilogue to the last play, it seems evident that Shakespeare intended that Falstaff should play on the role throughout Henry V, but that plan was altered, and early in the play Falstaff dies. Mis-

tress Quickly, unselfish busybody, who makes as much clatter as a fish-wife, the friend to John, attends him in sickness and death, and she tells us, " 'a made a finer end and went away, an it had been any Christian child," crying, "God, God, God! three or four times." Even the death of Sir John has a comic halo. We cannot pass along without a word about "the boy," for jewelers tell us small diamonds are worth saving. He is as sharp as the city waifs who have to pick along their own way in life, shrewd as an old timer; evidently has knocked about the world, if he *is* a sprig of humanity; he has lots of confidence and a good opinion of himself, for he stands on the planet, like a chipmunk does on a stump, and says he is better than these "three swashers," his masters, combined. Shakespeare delighted in low life, and he always did justice to his low characters, especially to their comic element. Bates, Court and Williams are three common soldiers in the king's army. They show hearts true as the steel of Toledo. They are of the stuff that warriors are made of, brave, valiant, unwavering, cautious, without boast, a little fearful for defeat when the odds are five Frenchmen to one Englishman, but loyal to the king, steadfast, powerful and mighty in will as the Spartans at Thermopylæ.

Four captains of the king's army are included in the *dramatis personæ*: an Englishman, a Scotchman, an Irishman and a Welshman. Their names are Gower, Jamy, Macmorris and Fluellen. In the last play there was a rebellion of the Welsh under Owen Glendower, who was defeated at Shrewsbury. Henry IV had been alarmed by rebellions in Ireland, he had marched into Scotland and laid siege to Edinburg, and he was unsafe in his own country. Hence the dramatist uses much dexterity and skill in his art when he brings together and unites the four hostile nations in bonds of fellowship in this great national drama, and it was an adroit scheme to thus make adverse peoples join hands over the issue of a foreign war. Gower is a steady, taciturn English-

man, a man of not many words but much action. He could stand many a blow and be silent, and could fight many a conflict and not be weary. The man of words is not so much the man of action, as the man of reticence and reserve. Jamy has as much will as his modern brother, and Macmorris is as hasty, nervous, fiery and resenting as any Irishman of this day. Look you: Fluellen says he is as good a man as Macmorris is, and Macmorris, flaring up like a madman, says he will cut off his head. How preposterous! Fluellen, after the king, is the most interesting character in the drama. He is as garrulous as an old man, and as pedantic as an ignoramus. His talk is all of the old wars, the Roman disciplines, the pristine wars, Mark Antony, ancient wars of the Romans, and Alexander the *Pig*, all as meaningless as the chatter of a child. He is so disputatious that he gets into squabbles, and likes to exhibit his sparse knowledge so much, that he snarls and whines when it is thrown back in his face again. But he is ready, brave and honest. He is duped by Pistol and makes him smart for it. He is outspoken and frank, and treats the king as he would a peasant in his native Cambrian mountains. We admire Fluellen as a man to be trusted. There is nothing of the sneak in him. His heart is right. What he speaks he means. He is restless, petulant and unsubmissive. What Fluellen is, can be seen on the surface. His soul is no hidden quagmire of iniquity. I imagine he was dark haired, red-whiskered, ruddy faced, wiry, strong and irresistable. Shakespeare has copied the dialects of these men exactly, the Irishman, the Scotchman and the Welshman, particularly the last.

The unity of purpose and the fascination of the whole drama is centred in the ethical development of the hero, Hal. Shakespeare has but one pet; one man whom he idolizes as his true and perfect hero; moulded in the image of Mars; whose dignity dazzles with its splendour; true in character and principle; loved by his people, befriended by all;

a warrior, a statesman, a king; but a man, sympathetic and humble.

"But lo! o'er these, o'er all the host confest,
The young (Prince Henry) towered above the rest:
With martial grace his looks around he cast
And gazing crowds admired him as he passed.
Matured beyond his years his virtues shoot,
As, mixed with blossoms, grows the budding fruit.
When clad in steel, he seems like Mars to move;
His face disclosed, he looks the God of Love."

Gierusalemme Liberata—Torquato Tasso.
(Book I, lines 439-442.)

Shakespeare was a noble patriot, he had a big English heart. He paints for his time a model politician, a perfect leader and a man of feeling, mercy, justice and equity. The king's change since youth truly is wonderful; scape-grace Hal has become good King Henry. Can dross become gold? No, not in alchemy, but it can in character! The margarite developes best in the mud of the ocean, and Henry was a better man by being "in companies, unlettered, rude and shallow." He is transformed: we study the inside of this nodule of chalcedony and, behold! what beautiful lines of character. He is just, religious, righteous, conscientious. His words are, "God doth know." "We charge you in the name of God." "May I with right and conscience make this claim?" He is wary and cautious; resolute and determined; resenting an injury to the majesty of his office; stern and severe; revengeful but not spiteful; hardy in will as in body. As regards his countrymen he is feared, admired, and beloved; he is thier friend, leader, guardian, guide, the subject of their adulation, worship and idolatry. He has reliance on them, and is persuaded that he has not a heart in England that does not beat in fair consent with his own. He is merciful, pitying, but severe in his pursuance of duty. His sweetness, his tenderness of feeling, and sorrow for the wrong-doing is made very manifest when he says to the conspirators, "I will weep for thee, for this revolt of thine, me-

thinks, is like another fall of man." In war, Henry was most powerful, unswerving, unbending; valarous as Achilles; cold as his native north wind; heroic as Napoleon on the Bridge of Lodi; in him bloody constraint is abashed; his advance to the assault is like the fierce tempest, or the clap of thunder; and the terror of his oncoming is like the fall of a Niagara, or the descent of an avalanche. In peace, the Henry of the mastiff and the blood hound is quiet and affable, can play the sentimentalist with Katherine, or enjoy jokes of his own making. He quips, he taunts, he gibes, but must always have fair play. Honour to him is estimable, he keeps his word. Above all, Shakespeare paints Henry as having true piety, without which he would not be a rounded hero, for no profane or blasphemous person could be set up on an exalted pedestal as an example of true heroism: he would be a fiend and not a hero. Critics overlook this point. They do not seem to see that the dramatist was portraying an ideal hero and soldier-king.

THE GROUND OF THE JUSTIFICATION OF PUNISHMENT.

A STUDY BY THE CLASS IN PHILOSOPHY OF THE STATE.

EDITED BY BURKE DRAPER.

[For two hours of each week during the winter term, the instructor and three students devoted themselves to a comparative study of the various theories on which it has been attempted to justify the infliction of punishment. The paper

appended is an attempt roughly to summarize the matter of many particular studies and reports.]

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I. What is Punishment.

Plainly, we first need to get a clear idea as to what is meant by punishment. Grotius defines it as "an evil of suffering inflicted on account of an evil of doing." (Whewell's Grotius, p. 222). With sufficient emphasis on particular parts, this definition will answer fairly well.

Punishment is "an evil." It is that which no one would voluntarily choose. Some absolute theories seem at times to

deny this, asserting that, as the absolute right of the criminal, punishment is his true good. Of course no one who believes in it at all would deny that it is in a sense a good, that it is in the long run a good; but, immediately considered, it is an evil. Its good character, i. e. its fitness to result in the long run in more good than harm, needs proof. Stahl, who at least accounts himself of the absolute school, says that "punishment undeniably is an evil." (Vol. 2, part 2, p. 165.)

Again, punishment is "inflicted." It is not an evil which works automatically. The view of punishment held by a certain class of theologians who, following Schleiermacher, make God's punishment of the sinner nothing more than the coming upon man of the natural and inevitable consequences of his own acts, has no place in political philosophy. Punishment is brought upon the criminal by the intervention of an objective will, a will outside of, and presumably superior to, the will of the person punished. It is at this point that the need of a justification of punishment is most evident. This definite infliction of an evil on one person by another person at once makes punishment a thing for which men are responsible, and also constitutes an act which violates the sacred personality of the individual.

Finally, punishment is an evil inflicted "on account of an evil of doing." It is not arbitrarily inflicted. It is inflicted only subsequently to, and, in some sense, as a consequence of, the doing of evil. Beyond this it is difficult to go without involving in the very definition some particular theory as to the basis of punishment.

II. What About Punishment Needs Justification?

We are now in position to understand what it is about punishment which makes its justification metaphysically necessary, and, consequently, what must be the requisites of any adequate theory. Punishment is an evil. Considered in itself, without reference to its consequences, it seems a

gratuitous addition to the already too great misery of the world. We must show that it is a necessary evil; that it is only *apparently* an evil; that more of good than evil naturally follows from its infliction. In the second place, punishment being inflicted by persons on other persons, involves the encroachment of one will on another will. It is the trespassing of the personality of the punisher on that of the punished. It is violating the sacredness which belongs to the personality of every rational being. This may seem to be a doctrine contrary to the spirit of current thinking. But we can not stop to establish it. Whatever men may seem to say, we can not but suppose that they will admit that there is a sacred right of personality in such a sense that no arbitrary, capricious interference with it can be just. Man is not a thing, and, if justice means anything, can not justly be treated as a thing.

Two questions, then, every adequate theory of punishment must answer. How is the violation of personality to be justified? Secondly, how is the bringing into existence of the evil of punishment to be justified?

III. Critique of Theories.

The usual classification of theories into Absolute, Relative, and Mixed we will disregard and will proceed to consider the different methods of answering the two questions above laid down.

A. Methods of Justifying the Violation of Personality.

I. First, it is claimed that the alleged violation of personality is only *in seeming*; that in reality the person who is punished, in being punished, is treated as a true person. That, if he is to be treated as a person, this is the only way it can be done. Punishment "is not wrong done to the criminal. It is a right done to him to redress his wrong—a right due to him as a person." (Lilly, Right and Wrong p. 127.) "When the law recoils, in the form of punishment,

on the head of the offender, he is treated in accordance with his right; his act is developed to its logical consequence, and the offender, in receiving punishment, is really being treated simply with the honor due to a presumptively rational being." (Morris' Hegel p. 26.)

a. The theory thus stated in a general way may have as many different particular forms as there are different theories as to the essential ground of the abstract justice of punishment. Thus, as indicated in the passage last quoted, Hegel seems to lay most stress on the idea that every person as a rational being has an inalienable right to be treated as a true *law-giver*. He *must* be treated thus. It would be giving him less than his right to treat him otherwise. "We honor in the criminal the human being endowed with the capacity for self-determination, when we punish him." (Lasson Rechtsphil. p. 533.)

b. Another form of the theory that punishment is the only right of the criminal and so the only true recognition of his personality rests on the *Lex Talionis*. This is the earlier form of the Absolute theory. With Kant it is the dominant idea. The unconditional demand of justice is that each should receive what he has given. "An eye for an eye." Treated in accord with this law the criminal is treated as a true person. "Whoever has done wrong must suffer evil, which for that particular wrong is the requital. By this happens to the criminal his own right." (Lasson p. 533.) "If a civil society resolved to dissolve itself with the consent of all its members,—as might be supposed in the case of a people inhabiting an island resolving to separate and scatter themselves throughout the whole world—the last murderer lying in prison ought to be executed before this resolution was carried out." (Kant Phil. of Law, p. 198.)

c. Still another phase of this doctrine makes the right of *redress* the central conception. In opposition this reply may be made. For the maintainance of absolute justice, the exe-

cutive and judicial power must possess two characteristics, namely, omniscience and omnipotence. The executive and judicial power on earth is yet in the hands of man. He possesses neither omniscience nor omnipotence.

II. But there is a second class of theories which recognize in a general way the inviolability of personality, but with the reservation that this is relative (a) to the good of society and (b) to the good of the individual himself.

The assertion that the right of the individual is relative to the good of society is equivalent to saying that society may use the individual in any manner it chooses. This is too repugnant to our moral sense for serious consideration. While the claim that man's rights are relative to his own good makes the state the absolute conservator of morals which is eminently unphilosophical. Morals depend not alone upon conduct but also upon the motives of conduct. Motives cannot be coerced.

III. Finally, it is possible to argue that, while the right of inviolability is recognized, yet this right may be waived or may be forfeited, the former by consent, the latter by reprehensible conduct.

a. The following is the statement of the contract theory and theory of consent to punishment as made by Beccaria. (Woolsey, Vol. 2, p. 337.) "The sum of all these portions of liberty sacrificed to the good of each forms the sovereignty of a nation. It is then certain that each one wishes to put in the public deposit only the least portion possible so much only as can induce others to defend him. The aggregate of these smallest possible portions forms the right of punishing. Everything beyond is abuse, not justice; fact not right."

The proposition that the individual may consent to encroachment within the province of his free self-determination is a direct application of the contract theory. Here we have the personality of the individual asserted in the most emphatic terms. It cannot be violated save with the individual's con-

sent. But this consent could be withdrawn at any moment while any attempt to coerce would be extra-contractual and invalid as well as unjust as far as the compact was concerned. A contract itself can not establish the right to punish for the violation of the contract. Government resting upon this theory would rest upon thin air.

Again, it is claimed that the individual although not specifically consenting to punishment, has tacitly consented as declared by his criminal act. "So that he who directly wills to offend must also by consequence have willed to incur punishment." (Grotius, p. 223.) "What Beccaria demands, viz., that a man must give his consent to punishment, is quite right, but the criminal has already given it through his act." (Hegel Phil. des Rechts, par. 100.) In spite of the representation of this as a necessary condition of just punishment, it is probably hardly necessary to treat this statement seriously. It is one of those paradoxes in which Hegel took such delight. Plainly the sort of consent which a man gives by his act, an act which he does not expect to have imitated by any one else, will have no value in explaining the infringement of his personality. To represent it as such is mere juggling with words. "For it is clear that the so-called in-itself-existing will, even as in-itself-existing, is not the will of the criminal, or, in other words, that a will cannot be designated as mine merely because I *ought* to have it, as long as I *do not* have it." (Ulrici *Naturrecht*, p. 398.)

Closely allied to this idea of Hegel's, perhaps scarcely distinguishable from it, is this from Lasson, "Not that he (the criminal) has really willed punishment as his right; but that he *ought* to have willed it: because as a rational being he ought to have willed that which is *rational* and *just*." (Rechtsphil. p. 533.)

But it still remains to consider the theory which urges that personal inviolability may be destroyed.

Is it not reasonable to regard it as possible that the individual,

by conduct at variance with freedom, with natural law, and with the social order, should forfeit his rights under these and thereby tear down the bulwark of his inviolability? Having taken up the sword he could not cry injustice when he fell by the sword.

This idea of forfeiture as opening the way for punishment is again capable of a variety of interpretations. If we interpret crime as Hegel does (according to Morris, p. 25) as "an offense against freedom in its universal sense, * * * an attack on the foundation of right as right," we may say that such an attack forfeits the right to freedom, or indeed to any rights under the moral order. Again, we may say that crime, as a war upon the order of rights in general, forfeits the criminal's claims to rights under that order. Finally, we might take a more concrete view and declare that war upon the giver of rights forfeits any claim to his support in the enforcement of right.

B. Methods of Justifying Punishment as an Evil.

The preceeding discussion only goes to show that no wrong is done to the transgressor if he be punished. But this is not sufficient. How is the bringing into existence of the evil of punishment to be justified? "If an offence were an isolated act, the like of which would never occur, punishment would be useless." (Bentham according to Woolsey p. 353.) What good end is to be attained commensurate with the evil inflicted? "For," says Plato, (as quoted by Grotius, p. 224.) "reason dictates to man that nothing is to be done by him so as to harm another man except it have some good purpose." What is this good purpose? This is variously answered.

A. The Abstract Theories.

First, it is argued that the object sought, in punishment, is *the satisfaction of justice.* Lilly declares that "the primary object of punishment is not the protection of society, nor the reformation of the criminal; it is first and before all

things vindictive." "The very instinct of retributive justice is punishment." (p. 122.) In Ulpian's words justice is "the constant and perpetual will to render every man his right. Punishment is the right of the wrong doer." (Lilly, p. 129.) "Punishment, as such, has in general no object; punishment is inflicted because punishment is rational and just, not in order that through punishment some external end may be attained." (Lasson, p. 533.)

Under the second of the Abstract Theories it is urged that the end in punishing is the maintainance of law over the will of the criminal. "The law-resisting will must inexorably be struck to the earth. Between the supposed crime and the order of right exists a bitter conflict, in which is involved existence itself. * * * Punishment is the victory of reason over unreason, of law over caprice. * * * and it has no other object than to signalize this victory." (Lasson, p. 533.)

But the maintainance of law, in itself considered, cannot be regarded as an end. Law is but a means to the ultimate end and that end is the preservation of society.

Another putting of this theory emphasizes the maintainance of the authority of the ruler as the end to be attained through punishment. "The end of punishment is to assert the supremacy of the sovereign over the subject who by his transgression had affirmed himself supreme." (Hickok, p. 131.)

This is open to the same objection as the preceding. Only as we regard the ruler as the representative of the social order, can we with reason say that the object of punishment is the maintainance of his authority.

B. Concrete Theories.

But, again, the reformation of the criminal, has been urged as the end of punishment. But we may ask why the reformation of the criminal? If the real aim is to protect society, then society and not the criminal is primarily to be benefited.

If this is its proper interpretation then this theory should be classed under the next head.

On the other hand if the purpose is to benefit the criminal, then how far is reformation to be attempted. Must we attempt to supplant selfishness with generosity and envy with brotherly love? For this the best instrument would be an established church. Then the clergyman would supersede the jailer.

Finally, it may be said that the evil of punishment may be justified by reason of *the good of society* thereby secured. It is the first business of the State to furnish the conditions for man's highest development. Man may claim as his first and highest right the right to live under an established social order. That this social order may be maintained its enemies must be deterred and its assailants punished. Thus Green: "This constitutes the right to punish, viz., the right so far to use force upon a person, (to treat him as an animal or a thing) as may be necessary to save others from his interference." (Phil. Works, Vol. II., 486.) "Thus it (punishment) is elevated to the first rank of benefits, when it is regarded not as an act of wrath or of vengeance against a guilty or unfortunate individual who has given way to mischievous inclinations but as an indispensable sacrifice to the common safety." (Bentham Book I., chap., p. 3.)

Therefore, in stating our conclusion we may say, that while the right of personal inviolability and free self-determination is recognized as existent and real, yet it is only a part of the great order of things. If the individual raises his arm against this order, he can no longer claim protection under it. He then ceases to be one of the primary objects for which this order exists. He may now be destroyed that the order may live.

But, as we have attempted to show in the latter part of this discussion, the social good must demand this. Society has no right simply for its own profit to sacrifice the individual. Thus we conceive the ethical basis of the right to punish to rest upon this dual foundation. The justice of punishment resides not alone in the guilt of the criminal, nor does it exist merely because the best interests of the social order demand it, but because both these are present.

SOME OF THE NEXT STEPS FORWARD IN EDUCATION.

President E. Benjamin Andrews, of Brown University, has an article in *School and College* on the above topic, from which we make a few extracts.

"Foremost among the items of educational progress to which attention is invited, is a new conception of the nature and ends of education, new to some in omitting certain elements, to others in introducing elements, to others in relative emphasis of the elements recognized by all.

"Speaking succinctly, the constituents of a souud education are first, character; second, culture; third, critical power, including accuracy and also sympathy with all the various ages, nationalities, and moods of men; and fourth, power to work hard under rule and under pressure.

"The definition makes character part of education, and even gives it the first place. All reflecting persons are coming to feel that unless schooling makes pupjls morally better, purer within, and sweeter, kinder, stronger in outward conduct, it is unworthy the name.

"Culture comes next, by which is meant the power to apprehend and relish the beautiful in conduct, in art and literature, and in nature. Education must enrich life, not enlighten it merely. Culture stands in importance close to education, to which it is also very intimately related in essential nature, and it is far more to be sought than mere mental ability.

Third comes critical power, and mainly in the two great elements of accuracy and sympathy. Memorable ever is the

thought of Cardinal Newman, that the principal part of a good education is accuracy. That one's mind is full signifies nothing unless the contents are definite and analyzed. A little knowledge well grouped and ordered comes much nearer the ideal education than infinite funds lying unassorted in the mind like so much raw ore.

"We need, more than we have as yet done, to get upon a level of friendship with our pupils, not standing off from them, not looking down upon them. Present yourself to your pupils as their guide, friend, adviser, elder brother,—one who, having the advantage of age and larger study, is able to assist them. The *in loco parentis* idea of the teacher's office is sometimes urged as an argument in favor of pedagogical sternness and severity. Not so. Parental authority itself is no longer exercised in the old way. How many civilized fathers horsewhip their boys nowadays? In the lower grades, and to an extent in all, authority must exist, but it should be kept so much as possible in the background. Never coerce a pupil save as a last resort.

"Our next thought is upon thoroughness, and relates more to education in its upper walks. If higher education is to be thorough, it must give large play to the elective system of studies. The old college curriculum made real thoroughness well-nigh impossible. It forced pupils to be smatterers, because, just so soon as a student got introduced to a subject, it rushed him forward to commence in the same superficial way something else, and so on to the end. He might know a little about many things; much he could never know of anything.

"The benefits springing from election when the mind is ripe for it, are vastly beyond what its foes will admit, and even greater than many of its friends think. One is the advantage of unity. You notice that graduates and adult students, whatever their intellectual callings, always study, if they are permitted, one thing at a time. A lawyer finishes a particular case before he begins another and before he undertakes any collateral study. A minister will not, unless forced to, pursue any concurrent investigation while making a sermon. Whenever we are obliged to think seriously upon two or three subjects at the same time, much force is lost. If this is the case with adult minds, how much more with pupils not yet mature. It is a grave question whether we do

not err in prescribed work, by forcing classes to carry along too many studies at once.

"Another revolution soon to greet the educational world, is to consist in the introduction of several educational methods and appliances which will greatly save labor and time.

"It must be admitted that the adverage youth of eighteen in France or Germany is at least two years further advanced in quantity and quality of mental stores than his fellow of equal age here who has attended school quite as many months of his life. That this is an immense gain every one will see. It cannot be ascribed to extra native brightness in the European boy, or any considerable part of it to inherited aptitude for learning. The reason for it is that over there they teach better than we have learned to do, partly by introducing each several study at the right time, partly by securing a higher grade of teaching talent, especially for the lower classes, and partly by more scientific modes of opening and filling the mind, whatever the grade. We shall never catch up with Europe till we pay better salaries and higher honor to teachers, particularly in primary and introductory work, nor until we give more study to the science and art of teaching.

"We are coming to see the terrible and needless loss suffered by neglecting studies like botany, mineralogy, physiology, and the elements of physics, till the pupil has passed the age of special observational power.

"Not only the times but the methods of teaching these branches are changing for the better. The laboratory, the demonstration, the note-book, field work, prepared specimens,—these are displacing the dry-as-dust old text-book, and bringing with them what is always so welcome, first-hand knowledge and the ability to be an investigator. This splendid reform must be carried through.

"Mere grammatical drill, with such work as is common in translating the texts of authors, has its use, but this use is commonly over-estimated. It can, never by itself, constitute a very advantageous or liberal education. In college, pupils who wish should certainly be permitted to travel the philological road and travel it to any length. But the entire class ought not to be forced to take that road. Provision ought to be made so that any who wished might spend their whole four years mainly on the classics, and you may be sure that many would do so."

PART II.

OFFICERS AND FACULTY OF ALBION COLLEGE, COURSES OF STUDY, APPLIANCES AND WORK OF THE INSTITUTION.

CALENDAR 1892-93.

1892.

COMMENCEMENT WEEK.

June 15—Commencement Reminiscence Meeting, 8 p. m.
June 16—Anniversary of College Society, 8 p. m.
June 17—Anniversary of College Society, 8 p. m.
June 17—Closing day of recitations and examinations.
June 19—Commencement Sunday.
June 20—Class Day.
June 21—Alumni Day.
June 21—Meeting Board of Trustees, 2 p. m.
June 22—Conservatory Day—Commencement Concert, 8 p. m.
June 23—Commencement Day. Year closes.

OPENING OF THE COLLEGE YEAR.

Sept. 21—Examination of candidates for admission; also special examinations, 9 a. m.
Sept. 22—Enrollment Day—Commencing 9 a. m.
Sept. 23—Recitations begin—Chapel 9 a. m.
Dec. 22—Term closes.

HOLIDAY VACATION.

1893.

Jan. 4— { Entrance and Special Examinations. / Enrollment Day.
Jan. 5—Recitations begin—Chapel 9 a. m.
Jan. 26—Day of Prayer for Colleges.
Mar. 23—Term closes.

SPRING VACATION.

April 4— { Entrance and Special Examinations. / Enrollment Day.
April 5—Recitations begin—Chapel 9 a. m.
June 22—Commencement Day, preceded by Exercises of Commencement week.

College Day at the College, and in all Churches, on the third Wednesday of November.

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		Term Expires.
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Horace Hitchcock	Detroit	1893
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Hon. A. T. Bliss	Saginaw	1894

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Librarian.

REV. B. S. TAYLOR, M. D.,
Assistant Librarian.

ORGANIZATION AND GOVERNMENT.

Albion College was chartered by an enactment of the Legislature of the State of Michigan in 1861. The school was first opened as a Seminary in 1843, in accordance with the provisions of a charter granted in 1835 and amended in 1839. The corner stone of the first building was laid in June, 1841. In 1849 the charter was amended so as to create a Female College. In 1861 full college powers were granted by the Legislature, so that for thirty-one years it has been authorized to confer degrees without distinction of sex.

The general government of the institution is vested in a Board of Trustees, consisting of sixteen persons, six elected by the Detroit Conference of the Methodist Episcopal Church, six by the Michigan Conference, and three by the Society of Alumni. With the foregoing the President of the college is associated as a member *ex officio*. The State appoints annually a Board of Visitors and Examiners to inspect the workings of the college, which Board makes a Report to the Superintendent of Public Instruction. Boards of Visitors are also appointed by both the Detroit and Michigan Conferences. A Centenary Board has been organized for consultation and advice, but without official authority—consisting of fourteen persons appointed by the Michigan Conference, and a like

number appointed by the Detroit Conference, who, united with the Bishops of the church, are depended upon for many valuaable suggestions for the most successful workings of the instituiton.

In the interim of meetings of the Board of Trustees a certain measure of power is vested in an Executive Committee consisting of the officers of the Board, who are also constituted an Auditing Committee.

The immediate government of the college is in the hands of the President and Faculty. The enrollment of the student carries with it obligations to perform the work assigned, and to live up to the spirit of the institution in study and deportment. The purposes of college life should be to secure scholarship, to broaden and culture the mind, and to build up noble character.

LOCATION, BUILDINGS AND RESOURCES.

Location.—As with many other institutions of learning, the college bears the name of the place where it is located. Albion is a thriving young city of 5,000 inhabitants, situated in Calhoun County near the central portion of the lower Peninsula of Michigan. It is one of the most beautiful towns in the state. The ground is rolling and picturesque, so that the view is delightful as gained from any point. It has several large manufacturing establishments which add much to the capital of the place. The locality is very healthy, depending partly on the topography of the place and partly on its unusually pure water. Its system of water works is supplied with water from artesian wells which reach down into the rocks 100 feet from the surface. The postal facilities are equal to those of the largest cities, as there is free mail delivery. Albion is on the main line of the Michigan Central Railroad, 95 miles west of Detroit. The facilities of communication are all that could be desired. The Lansing Division of the Lake Shore and Michigan Southern crosses the Central at this place, providing direct connections with the main line of the Lake Shore on the South; and at the North with the Grand Rapids Division of the Michigan Central, the Detroit, Lansing and Northern, the Grand Trunk, and other lines. The country about Albion possesses much of scenic beauty, and comprises some of the finest farming lands in the State.

Campus.—The College Campus contains about twenty acres of ground, fifteen acres occupied by the buildings and lying

on the west side of the buildings in the direction of the business portion of the city. The balance of the ground is on the east side of the buildings, and is principally covered by a beautiful grove. The campus is by nature a charming part of the city, and is much improved by art.

Buildings.—The buildings occupy the highest portion of the grounds, some forty feet above the level of the principal business street, and are reached by a gradual ascent. They are a little less than a half mile from the center of the city. There are three main buildings contiguous to each other, which are built of brick and stuccoed. The central one of these is 40x100 feet, and four stories high. It is devoted principally to the Conservatory of Music and the Department of Natural Science. One-half of the second and third stories is occupied by the Museum, and the other half by the Chemical and Biological Laboratories. The other two buildings are each 46x80 feet, and three stories high. One of these is the Chapel and Library building, which also contains the Business Office and President's room. The other is divided up into Lecture and Recitation Rooms, containing, in addition, the Halls of the two College Literary Societies and the Art Studio. On the campus, also, stands the Astronomical Observatory, which is admirably equipped. Just across the street from the campus on the North is the President's House, which overlooks the campus on the West, and is one of the finest residences in the city.

The Sigma Chi Fraternity has built a beautiful brick and stone Chapter House, which is located at the east point of the college grove.

During the year a Gymnasium building will be erected for the use both of the young men and young women.

A gentleman has promised the college a $50,000 Library Building, which will be erected at no distant day.

Financial Resources.—The College possesses about $230,000 of productive endowment, and $175,000 of unproductive endowment. Measures are being pushed to endow an Alumni

Professorship, which are meeting with gratifying success. Also measures are nearly consummated for the endowment of two more Professorships. The funds for carrying forward the work of the institution are derived from the productive endowment and student's fees. In the College and Preparatory School no tuition is charged. An incidental fee of $5.00 a term is collected from each student. A statement of tuition charged for instruction in music, painting, commercial studies and oratory will be found on a later page of the Year Book. The Matriculation fee on entering the college is $5, and the Graduation fee is $5. The Endowment Fund is in the hands of an Endowment Fund Board, which exists in pursuance of a special State Statute, said Board being authorized and required by law to pay over to the Trustees of the college only the interest of the fund they control.

DEPARTMENTS OF THE INSTITUTION.

College of Liberal Arts.

Preparatory School,

In which Sub-collegiate studies are taught.

Academic Department,

In which students not candidates for a Degree are enrolled.

Conservatory of Music.

School of Painting.

Commercial Department.

Department of Oratory.

STEPS PRELIMINARY TO ADMISSION INTO ALBION COLLEGE.

1. ***All candidates*** for admission into the Institution must first call at the President's Room, No. 3, Chapel Building. They must present satisfactory testimonials of good character. If they come from other institutions they must bring certificate of honorable dismissal.

2. The second point to be settled is that of preparation to take up the prescribed courses of study, or the determination of the classification if advanced standing is sought. If the student comes from an ***approved*** school his certificates will be examined and his classification given him. If he does not enter on certificates he will be examined.

3. After the foregoing work is attended to the student is enrolled and his work assigned him.

Enrollment Day.—The opening day of each term is Enrollment Day. As a special list of students is prepared for each term, all students must ***report for enrollment on the first day of the term.*** For new students this is the act by which they become members of the Institution. The tickets issued contain a list of the studies to be pursued, and also a statement of dues,—*which must be paid before the student is admitted to recitations.* All individuals intending to enter any of the departments of the College should report on the first day if possible. If this cannot be done, they will be received at a later date,

if qualified to enter the classes. Persons who are already students are also *required* to take out their term tickets on Enrollment Day, so as to be able, on the following day, to prosecute their work with the regular classes. The closing of a term does not terminate the student's connection with the institution; *and unless he graduates or is excused by the President he must be present on the first day of the succeeding term.* Absence on that day is as much a violation of the rules and order of the school as though it occurred in the middle of the term.

Examination of Candidates for Admission.—At the opening of College Year, *on the day preceding enrollment.*

At the beginning of Winter and Spring Terms—*on Enrollment Day.*

The Faculty are not at liberty to give instruction previous to the presentation of the Term Ticket receipted by the Secretary.

Students who are not in their places at the opening of the term must, if minors, *present a valid written excuse* from their parents or guardians; and if not minors, must give *satisfactory reasons* for such delay.

REQUIREMENTS FOR ADMISSION INTO THE INSTITUTION.

PREPARATORY SCHOOL.

Candidates for admission into the Preparatory School must ***have a knowledge of the primary branches, including Descriptive Geography, Mental Arithmetic, Written Arithmetic through Fractions, and some knowledge of English Grammar.*** Starting with this preparation, those who are studious will be able to complete the course prescribed in four years, so as at that time to enter the Freshman Class. For ***advanced standing*** examination must be passed on that part of the course for which credit is given, or on work equivalent thereto, unless certificates are brought for the same from accredited schools. The object of this school is to provide young people who desire to fit themselves for college with the most complete advantages for such preparation. It is not simply an academic department, but is conducted in the interest of those who intend to pursue studies required for admission into college. We call special attention to the order of the work here provided as in an eminent degree answering the purpose of the school.

COLLEGE OF LIBERAL ARTS.

Candidates ***for admission*** to the Freshman Class must be at least sixteen years old, must pass examination in the Primary English branches, and in all the studies of the Preparatory Course, or studies equivalent thereto as taught in the High

Schools, unless admitted on diploma or certificates from other Schools under conditions elsewhere stated.

Candidates for ***advanced standing*** must, in addition to the foregoing, pass examination on advanced studies for which credit is sought, unless coming from other colleges whose work is accepted by us. Persons not candidates for a degree will be admitted to the regular classes, *but will be charged the matriculation fee, when their scholarship would entitle them to admission into the Freshman Class.*

ACADEMIC DEPARTMENT.

Literary students who do not desire to be classified must report to the President and Registrar, the same as others. They will be allowed to take such studies as their scholarship will enable them profitably to pursue, whether elementary or more advanced. If they take ***college*** studies—that is studies in advance of the work of the Preparatory school—they will be expected to pay the matriculation fee.

CONSERVATORY OF MUSIC.

Students are admitted into this Department at any stage in the course. They must confer with the Director of the Department to determine what work they can profitably carry. They will be assigned to such grade as their acquirements indicate.

SCHOOL OF PAINTING.

Before commencing work in the Studio, Painting students must procure ticket for the same, and talk with the Head of the Department as to plans of work and proficiency—if any—already gained. The order and kind of work must be subject to the judgment of the Professor in charge.

COMMERCIAL DEPARTMENT.

The literary attainments of students entering this Department greatly vary, and hence practically they must be treated

according to individual qualifications. The Principal must therefore be made acquainted with the fitness of each, on entering, for the studies he is to pursue. This can only be done by free and full conference with him.

DEPARTMENT OF ORATORY.

The Professor in charge of this Department will converse with each student applying for work in elocutionary studies, and will point out the best method to pursue. The treatment of different students must be varied to a considerable extent. The same as others they must procure of the President ticket of admission, and make payment of bills in advance.

ADMISSION FROM THE HIGH SCHOOLS.

1. Under conditions mentioned below, ***we shall accept without examination of students,*** the work of the best High Schools of twelve grades as preparation for College. ***We shall accept the completed work of the English Course*** as sufficient to admit the student into the Freshman Class in our Letters Course, on graduation from which he will receive the degree of Bachelor of Letters. If the course he has pursued be ***more strictly Scientific,*** he will, in the same way, be ***admitted into our Scientific Course,*** for which the degree on graduation is Bachelor of Science. If the course studied was largely made up of Latin, or Latin and Greek, he will, in like manner, ***be admitted into College in the Latin Scientific, or Classical Course,*** which will prepare him, in the former course, for the degree of Bachelor of Philosophy, and in the latter for Bachelor of Arts. Under the same conditions we shall admit into our ***Fourth Preparatory year*** from schools of eleven grades which are known to be doing satisfactory work.

If, however, the student in preparing for college has not pursued the study of Latin or Greek, or only to a limited extent, but desires to enter the Classical or Latin Scientific

course, he can be thus classified without loss of time by taking up these studies in classes which are always organized in the Institution. This provision is made because we believe it to be best for every student to get as complete a knowledge of language as possible. For such students the number of Electives must be quite limited.

2. The regulations contained in the preceding paragraph apply to *all schools which*

(a) Have been *visited by the Faculty of the University of Michigan* and approved by them; or

(b) Have been *visited by us and approved;* or

(c) Have, by some other *satisfactory method, supplied us with the evidence* that, in extent, quality and completeness of work, the pupil has gained the scholarship and culture required to enter our classes. *If the school has received formal approval according to* (a) *or* (b) *of this paragraph, we shall admit students directly on their diplomas and certificates.* But if the school is not included in one of these classes, and it is desired to enter into relations with Albion College, the course or courses of study must be transmitted to us with such statements in regard to the work done as are considered important. This will be preliminary to an adjustment of relations. We will, at an early day, give information as to our judgment of the curriculum followed in such school.

3. To be *admitted into the College without examination,* the student, if coming from a school included in one of the classes of 2, (a) or (b), will *present his diploma or certificate,* together with *a letter from the Superintendent or Principal of the School informing us that his work has been thoroughly done, that his habits are studious and that he possesses capacity for genuine scholarship.* On the strength of this he will

be ***immediately classified.*** If he comes from a school embraced in class 2 (c) he must ***present his diploma or school certificate, with a letter from the Superintendent or Principal*** of the school certifying to the earnestness and success of his work. He will then be ***classified provisionally*** according to the tenor of these documents, which classification will be ***made permanent after a few weeks' successful study in the institution.***

4. *On account of the exceptional length and fullness of some of the High School courses, the graduate finds that he has covered more subjects than are required for entrance into the best colleges. Such a graduate will be able to get advanced credit for some of the extra subjects thus taken, and to shorten his course in college by a third or even a half year. For this advanced credit High School certificates will be accepted save in the case of those subjects suited only to a later stage in one's culture, such as Philosophy, Political Economy, Political Science, etc. The exact amount of credit to be given will in every case be determined by the head of the department interested.*

REASONS FOR THE FOREGOING.

The ***Public Schools are the most valuable provision*** for the education of the mass of the people found anywhere in this country. They reach the largest number of persons, supply the foundation of our civilization, and create conditions essential to the existence of free government. But ***colleges*** are doing a work of great importance. In some respects it must be quite unlike the work of even our best High Schools. It should be of a different grade, not only because the branches of study are of a higher order, but because of the greater maturity of mind of the pupil, the collection of more abundant means of illustration and research, and of the special methods it is possible to employ, contributing to more independent and thorough scholarship. The recitation, simply as a recitation, becomes a less important factor, gradually giving place, more and more, to self-reliant personal research in the

determination of truth, under the guidance, or with the advice, of men who labor in special lines of investigation.

For some years the conviction has been growing, that ***colleges should offer special advantages,*** not only to young persons who expect to enter upon a professional career, ***but to all who have high aims in life.*** The fact has come to be appreciated that, for the development of intelligent manhood, for the best discharge of the duties of citizenship, for meeting the demands of the highest forms of the arts, and for keeping pace with the advancing civilization of the age, the large class of persons who will carry forward the business and industries of the world would derive incalculable benefit from liberal culture.

But how can ambitious young men and women, who have formed high ideals of excellence, ***prepare for college?*** This preparation must, in most cases, be obtained in the High Schools, if gained at all. And while these schools, perhaps, may retain their pupils under instruction a sufficient length of time to prepare them for college, provided the course of study has been adapted thereto, there are insuperable barriers in the way. We recognize the fact that the ***High School exists to meet local wants,*** and does its work best when it most fully meets such wants. ***It has been held*** that, for the pupil to fit himself for college, it is necessary to engage in special lines of work such as are not found in most of our high schools, and which could not well be provided without sacrificing local interests. But for the last three or four years the Faculty of Albion College have been studying this question in the light of all the information they could obtain, with a careful scrutiny of the principles involved, and have reached the conclusion that ***the courses of study best adapted to the purposes of the High School, may, and ought to be, accepted in preparation for college.*** We are therefore trying the experiment, which we believe will be successful, of taking the student at the point up to which the best schools have educated

him, *giving him credit for all his work.* This will practically throw college doors open to a large number of young persons, who on the old system would be deprived of the advantages provided in the higher institutions of learning. By this plan we shall *not admit at any lower point of scholarship,* but shall make the lines of study in preparation more flexible, holding that it is training and culture that are needed, which can be secured through superiority and adequate range of work, rather than by adherence to the old method of following always a special line of studies. We are convinced that a large number of schools of twelve grades—in the quality and extent of work done—may be trusted to prepare for the Freshman year in college; and that many of the schools of eleven grades may be relied upon to fit the pupil for the Fourth or highest preparatory year.

KIND AND RELATION OF COLLEGE WORK.

The curriculum of college studies of half a century ago has undergone in many institutions, very extensive modifications; and those schools that adhere rigidly to the past are suffering in comparison with the class referred to. The ancient regime restricted the lines of study almost wholly to Latin, Greek and Mathematics, with something of Mental and Moral Philosophy. In the truly modern college a good deal of attention is given to the modern languages, to the sciences, to history, and to studies which are purely English. It may be remarked that there is much unreasonable prejudice against the *study of the languages.* While they should not monopolize the attention of the student to the exclusion of everything else, they rightfully may claim considerable of his time if the fullest culture is sought. No other studies are more practical. In every department of life we are constantly employing language. Not only is this true of the clergyman, the lawyer, the statesman and the journalist, but it is true of

every private citizen who has the least to do with public affairs. The clerk in the store, even, employs language more than he does arithmetic. Language is the repository and vehicle of thought. As listners, as well as speakers, the significance of words and the content of sentences employed depend on the depth and comprehensiveness of our knowledge of language. Indeed, we think through language, and the reach of thought is limited by the scope of the language as understood by us. As man is a being who uses language more than anything else—employing it in business, in social life, in intellectual pursuits, in his relation with others, and in the subjective development of mental power—the more profoundly it is studied and the more meaning we are able to put into it, the grander and more practical will life become. In the foregoing considerations nothing has been said of the special forms of mental culture promoted by the study of language. The benefit thus obtained is justly regarded as exceedingly valuable, and it is generally conceded that it cannot, in every respect, be gained from any other line of study.

The ***partiality for mathematics*** grows out of two forms of service rendered by it; one of these, as the instrument of business and for the development of science; the other as helping to generate a habit of accuracy of thought and power of attention. Mathematics, therefore, will always be given a large place in the college curriculum.

The ***growing interest in science*** has compelled colleges to give it a larger place in the four years of study than it formerly occupied. In some institutions the traditional aristocracy and exclusiveness of the past have not been sufficiently dissipated to allow the study of nature its proper share of time. It should be borne in mind that he who reads intelligently the book of nature is not only in communion with truth under conditions very favorable to the inspiration of thought, but a habit of close observation is acquired which is exceedingly fruitful of scholarly attainments. One of the

most important acquisitions is the spirit of intelligent-searching after truth.

It is only within a few years that the ***study of history*** has occupied to any extent the attention of our American colleges. That the lessons we may learn from history are of great value to us is indisputable. And unless colleges choose to incur the odium of deliberately rejecting that which is universally recognized as highly important, history studies should have a leading place in these institutions of learning.

Our ***mother tongue*** has usually received but little attention in the colleges of this country. The ancient languages were universally conceded to be of vital importance, while the English was pushed aside, only as it came into notice through the Latin and Greek. It is time that the folly of this was clearly perceived, and a radical revolution effected. While all languages should be considered a unit, and should be studied in their relations one to the other, the English speaking student should have his eye always on the English, and make all other linguistic lines converge toward his mother tongue.

There is another broad field for colleges to occupy in which they come closer to the daily life, and hear the heart throbbings of the public. We speak of the ***problems of Political Science, Social Science and Social Reforms.*** These problems should receive special attention if the college would do for the public all the work which may reasonably be demanded of it. And problems of this nature should be pursued not simply by the perusal of a text book, or by listening to formal lectures, but by exhaustive research, the studying of the questions involved from all sides. Thus will the knowledge gained be more exhaustive, the opinions formed more independent, while the most successful method of looking up the data for intelligent judgment on practical questions will be learned. In nearly every line of study the college ought to

put the pupil in the way of going outside the teachings of the text book, and making broad and extensive researches.

It is evident that any college fails to achieve the best and most reliable results unless it finds ***God at the foundation of all truth,*** unless it carries the student into the sphere of ultimate divine causation, as a reason for, and explanation of all science and conditioned being. Intellectually the work is incomplete, the scholarship rests on the sand, unless God is the support of the great temple of truth that is reared. The race can never be strong without a God, and colleges which do not aim to bring the Unconditioned Absolute Will into the problem of nature tolerate weakness instead of generating strength.

There are several facts to which we call attention.

We have arranged four distinct and radically unlike courses of study: the Classical, the Latin Scientific, the Scientific and the Letters Course. ***In the Classical,*** the Latin and the Greek hold a prominent place. In all colleges, both in Europe and America, until quite recently, there was no other course. And at present, many scholars maintain that more culture is gained from this line of work than from any substitute that has been offered.

In the Latin Scientific the Greek is replaced by other studies, but *requiring the same amount of time for their mastery.* These studies are principally—though not wholly—in science and mathematics. *But students who desire to make a specialty of Latin or some of the modern languages, can substitute further work in these languages for such branches in science or mathematics as have been introduced into this course, in place of the Greek found in the Classical Course.* This will make the course pre-eminently linguistic, the same as the classical course. Greek may be taken in the place of Latin and the course will then be Greek Scientific. In either case the degree conferred will be Bachelor of Philosophy.

In the scientific course there is no ancient language in the college curriculum, and *but one year of required Latin in the Prepar-*

atory, with also another year of either Latin or Greek. But the amount of Mathematics, Science and History, is much increased.

The college has established a ***Letters Course,*** in which the ancient languages are optional. Three years only of foreign languages are required, of which two must be either French or German, and all three years may be given to these tongues if desired, or a portion of the time to Latin or Greek. Much attention, however, will be bestowed upon the study of English, including the Anglo-Saxon.

The English Course of the High Schools will, in the direction of studies pursued, ordinarily afford a proper preparation for this line of work. Provision is made for the introduction of a *certain amount of study in Music, Fine Arts, Oratory or Commercial Branches* in case the student desires to elect the same. The exact character of this course will be explained later on in the Year Book.

The degree the student will receive on graduation is determined by the course he has pursued up to the Junior Year, *except in the course that prepares for the degree of B. L.*

In the Classical, Latin Scientific, and Scientific courses the Junior and Senior Years are devoted wholly to elective work, except Psychology, Logic and one term of Chemistry, which are required of all students who are candidates for a degree. Several studies in the Sophomore year have recently been made elective.

The courses of study will be found tabulated elsewhere in this volume; also a somewhat full exhibit of the work pursued. It will be seen by a study of the order and scope of the courses adopted, that the college is keenly alive to the importance of that which is new and valuable in the modern life of institutions of learning. It has done much to create a progressive spirit, and effect a reformation in the order and purpose of college work.

DEGREES.

At the completion of the under-graduate courses of study the first or Bachelor's degree is conferred as follows:

The degree of Bachelor of Arts, (A. B.) is conferred on all who complete the Classical Course.

The degree of Bachelor of Philosophy, (Ph. B.) is conferred on all who complete the Latin Scientific Course.

The degree of Bachelor of Science, (B. S.) is conferred on all who complete the Scientific Course.

The degree of Bachelor of Letters, (B. L.) is conferred on all who complete the Letters Course.

None of the above degrees will be conferred except upon satisfactory examination, and payment of the regular fee of five dollars; and the *name of no student will be presented by the Faculty to the Board of Trustees for a degree till he has submitted to the Faculty the receipt of the Secretary for the payment of all dues, includtng the fee for diploma.*

No one will be admitted as a candidate for any of the above degrees later than the first term of the Senior year.

The degree of A. M., Ph. M., M. S., or M. L., unlike that of LL. D. or D. D., is, in theory, not honorary, but a voucher for the recipient's actual and ascertained progress in some special line of post-graduate work; while in practice these degrees have been almost universally conferred by American colleges without any reference to the preparation or fitness of the candidate. During the last twelve or fourteen years, however, there has been a general movement toward the correction of this evil; in harmony with which movement, the Board, in 1879, passed a series of resolutions which furnish the bases of the following regulations:

1. Graduates of *any year previous to 1880,* of three or more years' standing, who have been engaged for three years in literary or scientific pursuits, will be recommended for the Master's degree, upon written application and the payment of the regular fee of five dollars.

2. Any person graduating ***subsequently to the year 1879,*** may obtain the Master's degree by either of two methods, viz:

(1). ***One Year of exclusive study in Albion,*** or

(2). ***A three years' course of reading pursued in connection with other occupations.***

3. ***A candidate electing either of these two methods will be required,*** (1) ***at the beginning of his course*** to elect, with the advice and approval of the Faculty, one principal and two subordinate lines of study; (2) ***at least one month*** before recommendation for the degree, to pass a satisfactory examination upon such work in each of the three lines as may be specified by the Faculty; and (3) ***at least two months*** before recommendation for the degree to present a thesis upon some topic approved by the Faculty in his principal line of work.

4. In the case of one-year candidates, ***residence in any college town*** or other place furnishing facilities for special study, such as libraries, museums, etc., will be accepted in lieu of actual residence in Albion; provided always, that all other conditions herein stated are rigidly complied with.

5. ***In no case*** will the candidate be recommended for the degree before he shall have paid in the regular fee of five dollars.

The plan followed by the student will embrace ***one principal line of study,*** and ***two subordinate lines.*** This work can be done in any of the departments represented in college courses, or ordinary post-graduate lines of study, embracing also the leading questions of the day.*

A statement of the conditions on which the degrees of Bachelor of Music and Bachelor of Painting are conferred will be found in connection with the courses of study in the Conservatory of Music and School of Painting.

*NOTE.—Any person desiring to become a candidate for either of these degrees will at once communicate with the Secretary of the Faculty, stating the line he would prefer to work in, his present occupation, his facilities in the matter of libraries, etc., etc., when the Faculty will determine, as nearly as possible in accordance with the applicant's inclinations, the studies to be pursued, prescribe the books to be used, etc., etc. As the work will be entirely elective, no specific course can be laid down: but in general it may be said that the candidate will be expected to work in the subordinate lines as a general student; in the principal line as a specialist

EIGHT YEARS OF LITERARY WORK.

Four years of this is Preparatory or Sub-Collegiate. The remaining four is Collegiate.

These are arranged in four different lines, named respectively, Classical, Latin Scientific, Scientific and Letters; on completion of which the student receives the degree of Bachelor of Arts, Bachelor of Philosophy, Bachelor of Science, or Bachelor of Letters.

PREPARATORY OR SUB-COLLEGIATE.

FIRST YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
English Grammar.....5	English Grammar.....5	English Grammar.....5	English Grammar.....5
U. S. History.....5	U. S. History.....5	U. S. History.....5	U. S. History.....5
Physical Geography.....5	Physical Geography.....5	Physical Geography.....5	Physical Geography.....5
†(Arithmetic 5)	†(Arithmetic 5)	†(Arithmetic 5)	†(Arithmetic 5)
English Grammar.....5	English Grammar.....5	English Grammar.....5	English Grammar.....5
Civil Government.....5	Civil Government.....5	Civil Government.....5	Civil Government.....5
Arithmetic.....5	Arithmetic.....5	Arithmetic.....5	Arithmetic.....5
English History.....5	English History.....5	English History.....5	English History.....5
Rhetoric.....5	Rhetoric.....5	Rhetoric.....5	Rhetoric.....5
Arithmetic.....5	Arithmetic.....5	Arithmetic.....5	Arithmetic.....5

† Taught in connection with the Commercial Department.

To lay a good foundation, especially in mathematics and knowledge of the English sentence, for the studies which follow, it is thought best to provide for all who need the same an opportunity to thoroughly review Arithmetic and English Grammar. The need of this in many cases

is evident. By introducing U. S. History, Civil Government, Physical and Historical Geography, Rhetoric and English History, the scope of work is considerably broadened.

SECOND YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
German 5	German 5	German 5	*German 5
Algebra 5	Algebra 5	Algebra 5	Algebra 5
Rhetoric 5	Rhetoric 5	Rhetoric 5	Rhetoric 5
German 5	German 5	German 5	*German 5
Algebra 5	Algebra 5	Algebra 5	Algebra 5
Physics 5	Physics 5	Physics 5	Physics 5
German 5	German 5	German 5	*German 5
Algebra 5	Algebra 5	Algebra 5	Algebra 5
Physics 5	Physics 5	Physics 5	Physics 5

THIRD YEAR.

Latin 5	Latin 5	Latin 5	*Latin 5
German 3	German 3	German 3	*German 3
Modern History 5	Modern History 5	Modern History 5	Modern History 5
English Literature 2	English Literature 2	English Literature 2	English Literature 2
Latin 5	Latin 5	Latin 5	*Latin 5
German 3	German 3	German 3	*German 3
Medieval History 4	Medieval History 4	Medieval History 4	Medieval History 4
Geometry 5	Geometry 5	Geometry 5	Geometry 5
Latin 5	Latin 5	Latin 5	*Latin 5
Geometry 5	Geometry 5	Geometry 5	Geometry 5
Botany 5	Botany 5	Botany 5	Botany 5

*Elective in language.

It will be noticed that the studies of the Second and Third Sub-Collegiate Years—in the Classical, Latin Scientific and Scientific Courses—are the same. Whatever may be the degree sought all these studies are needed. The Algebra follows the Arithmetic of the First Year, Rhetoric the Grammar, the study of the languages begins with the German.

Latin commences with the Third Year and is required in each of these three courses, and the other branches are fundamental to more advanced study equally in all the lines of work. Up to this point differentiation is not demanded. It could not be introduced without omiting studies that ought not to be left out.

FOURTH YEAR.

Latin.....4	Latin.....4	Latin.....4	English Literature.....4
Greek.....5	English Literature.....4	English Literature.....4	Geometry.....5
German.....3	German.....4	German.....4	
Geometry.....5	Geometry.....5	Geometry.....5	Elective.....6
Latin.....4	Latin.....4	Latin.....4	Mechanical Drawing.....4
Greek.....5	Mechanical Drawing.....4	Mechanical Drawing.....4	Roman History.....3
Roman History.....3	Roman History.....3	Roman History.....3	Physiology.....4
Physiology.....4	Physiology.....4	Physiology.....4	Elective.....4
Latin.....4	Latin.....4	Latin.....4	Zoology.....4
Greek.....5	Zoology.....4	Zoology.....4	Ancient History.....3
German.....3	German.....3	German.....3	
Ancient History.....3	Ancient History.....3	Ancient History.....3	Elective.....8

With this year differentation in the courses begins. The Greek is introduced into one course, supplying the specially distinctive factor to what may be called the Classical line. Three years of this language is required—five years supplied to all who desire to give the time to the study. In this course also there are four years of required Latin—six years of Latin afforded the student. In this connection we call attention to the following facts :

1. ***The extent of study*** to prepare for college is the same in all the courses. The degree to be gained is not thus lowered by being granted after a short course in any line of work, as in some institutions of learning.

2. ***We begin linguistic studies with the German.*** Former Year Books contain in full reasons for taking up modern before ancient languages, and it is probably not necessary to repeat

them here. It is enough to say that the student finds fewer difficulties in mastering a modern language than an ancient language, and hence as the more simple it should precede the more complex. Also modern languages open access to the valuable living literature of the learned nations of Europe, and it is important that the student possess the key to this storehouse of learning early in his course.

3. ***The study of the French*** has been postponed till the Freshman Year, because the graduates of High Schools, generally, have not had an opportunity of pursuing this branch in making preparation for College. We should give it an earlier place, were it not that we desire to accommodate the pupils who come to us from schools in this and other States.

4. The fact that in some cases ***the order of work*** in our Preparatory School is not the same as in many of the High Schools does not introduce any disorder into our movements, ***because back work can be taken up with classes in the Institution pursuing such branches, and credit secured for advanced work.***

5. ***Classification of students*** coming from High Schools, or Academies, will not depend on the fact of having pursued just the branches laid down in our preparatory courses, but ***credit will be given for equivalents*** so far as they harmonize with the lines of movement.

6. ***The Letters Course*** is provided for young people who desire to devote as much time to study as is necessary to complete any of the ordinary College courses, but being specially interested in the Science of Music, other lines of the Fine Arts etc., would like to gain the form of culture to be acquired in such studies. A limited election of these branches is therefore allowed for the degree of Bachelor of Letters. In connection with the tables of College Studies we will give an explanation of the Letters Course and the principle on which it is arranged.

TABULATED COURSES OF STUDY IN THE COLLEGE OF LIBERAL ARTS.

FRESHMAN YEAR.

CLASSICAL.	LATIN SCIENTIFIC.	SCIENTIFIC.	LETTERS.
Latin.....4	Latin.....4	Latin.....4	*French.....5
Greek.....5	Algebra.....5	Algebra.....5	
French.....5	French.....5	French.....5	
		Microscopy.....3	
			Elective.....10
Latin.....4	Latin.....4	Latin.....4	*French.....3
Greek.....4	Algebra.....5	Algebra.....5	
French.....3	French.....3	French.....3	
Trigonometry.....4	Trigonometry.....4	Trigonometry.....4	
			Elective.....12
Latin.....5	Latin.....5	Latin.....5	*French.....3
Greek.....5		Advanced Botany...3	
French.....3	French.....3	French.....3	
Trigonometry.....3	Trigonometry.....3	Trigonometry.....3	
	Elective.....4		Elective.....12

SOPHOMORE YEAR.

Latin.....4	Latin.....4	Biology.....3	Chemistry.....5
Greek.....5	General Geometry...5	General Geometry...5	European History....3
Chemistry.....5	Chemistry.....5	Chemistry.....5	
European History....3	European History....3	European History....3	
			Elective.....7
Latin.....4	Latin.....4		Astronomy.....3
Greek.....5	Advanced Physics...3	Advanced Physics...3	American Literature.3
German.....3	German.....3	German.....3	
Astronomy.....3	Astronomy.....3	Astronomy.....3	
	American Literature.3	American Literature.3	
		Elective.....3	Elective.....9
Latin.....3	Latin.....3	Physics.....3	Astronomy.....3
Greek.....4	Calculus.....5	Calculus.....5	European History....3
French.....3	French.....3	French.....3	
European History....3	Euro. H. (or Physics).3	European History....3	
Astronomy.....3	Astronomy.....3	Astronomy.....3	
			Elective.....9

*** It has been decided to make the Letters Course more flexible than heretofore in order to provide a course in which the student may more perfectly adapt the work to his peculiar taste and temperament. The required work in English, Mathematics, Science and History consists of the studies in the table which are not starred. In addition the candidate for this degree must take the courses in General Psychology and General Chemistry; also three years of Language, of which at least one year must be French or German. Of the Electives about seventy hours must be taken from the Literary Department. The ninety hours remaining may all be elected from the Literary Department, or in part from the Commercial Department with a maximum limit of forty hours, or from the Art Department with a maximum limit of forty-five hours, or from the Conservatory of Music with a maximum limit of sixty hours, or from Elocution with a maximum limit of eighteen hours, or from any combination of the above.**

JUNIOR AND SENIOR YEARS.

This table contains, in addition, all the Elective studie s of the preceding years, except those mentioned in the foot-note of the Letters Course on page 32. Not all the courses laid down in this table are usually given each year. Whatever shall be taught is determined principally by the dem and, though other circumstances enter into the case.

PHILOSOPHY.	THEOLOGY.	LATIN.	GREEK.	NAT'L SCIENCE.
Psychology.....5 History of Philosophy.....3 Pedagogy.....2	Old Testament History.....3 Res. Compar. Religions.....2	Horace (Odes)..2 Cicero (Tusculan Disputations) Book I.....2 Tacitus (Annals).2 Pliny (Epistles)..2 Christian Hymns.....1	Epic Poetry.....3 Drama.....3 Literature.....1 Greek Testament.....2 Hebrew.....2	General Chemistry.....5 Organic Chemistry..... Synthesis (Organic).....2 Sanitary Science 3 General Biology.3 Microscopy.....3 Geology.....4
Psychology.....3 History of Philosophy.....5 Theism.....5	New Testament History.....3 Res. Compar. Religions.....2	Livy (Book I)....2 Latin Literature —with the translation of extracts from the principal authors..2 Horace (Satires).2 Suetonius.....2 Catullus.....1	Epic Poetry.....3 Drama.....2 Literature.....3 Greek Testament.....2 Hebrew.....2	Quantitative Chemistry....5 Organic Chemistry.....3 Ultimate Analysis.....3 Geology.....3
Moral Science..5 Logic.....4	Church History.4 Evidences of Christianity...4 Res. Compar. Religions.....2	Terence (Andria or Adelphi)...2 Cicero (Epistles).2 Livy (Book XXI or Book XXII).2 Horace(Epistles).2 Composition.....1	Lyric Poetry....2 Plato.....4 Literature.....2 Greek Testament.....2 Hebrew.....2	Mineralogy.....3 Qualitative Chemistry.....3 Quantitative Chemistry.....3 Vegetable Biology.....3

JUNIOR AND SENIOR YEARS—CONTINUED.

HISTORY, POLITICS AND ECONOMICS.	ENGLISH.	MATHEMATICS, PURE AND APPLIED.	MODERN LANGUAGES.
European History, 1500—1648.....3 European History, 1648—1740.....2 History of Civilization.3 Political Philosophy..2 Political Economy....4	Anglo-Saxon.....3 History of English Literature.....3 Science of Rhetoric..3 English Lit.—Study of Masterpieces....3	Calculus.....3 Astronomy.....3 Quarternions.....3	French as described in the outline of work. German as described in the outline of work. Italian. Spanish.
Political His. U. S...3 European History, 1740—1815.....3 Political Science.....3 Research.....2	Early English.....3 Anglo-Saxon.....3 Science of Rhetoric..2 History of English Literature.....3 English Lit.—Study of Shakespeare.....3 Trench on Words.....2	Calculus.....3 Physics.....3 Astronomy.....3	French as described in the outline of work. German as described in the outline of work. Italian. Spanish.
European History, 1815—.....3 Practical Politics.....3 Finance.....3 International Law....4 Research..... 2	Early English.....3 Anglo-Saxon.....3 Trench on Words....3 American Lit.—Study of Masterpieces....2	Physics.....3 Modern H. Algebra including Determinants.....2 Astronomy.....3 Surveying.....3	French as described in the outline of work. German as described in the outline of work. Italian. Spanish.

NOTES ON THE FOREGOING COURSES.

The courses of study are put in tabulated form so that the student may see, at a glance, the time of the year in which instruction will be given in each branch, and the amount of time devoted to the same. The order prescribed is not followed with absolute precision, but may be varied to some extent, from time to time, at the discretion of the Faculty. If not followed literally an equivalent will be substituted.

The system of college work is made to conform to the ***most advanced views*** of leading teachers, and it is sought to bring it into harmony with the natural and necessary order of mental growth—both individual development and race civilization. A few words only are needed in this place.

By the time the student reaches the ***beginning of the Junior year*** he is regarded as prepared for ***more independent work*** than he could generally carry forward in the earlier part of his course. Henceforth his individual preferences are more largely consulted. It will be seen that lines of study and investigation are provided from which he may select the branches to be pursued. We invite attention to the following points:

1. ***A few studies*** and but a few are elective previous to the Junior year.

2. ***All studies in the Junior and Senior years*** are elective with the exception of Psychology, Logic and one term of Chemistry.

3. Students in these years must ***select from at least two lines.***

4. It is recommended that they select from ***three lines.*** These selections will be made under the advice of the Faculty, so that consistency of work may be secured.

5. It is the judgment of the Faculty that the best results are gained when the student has done very thorough work in all the studies previous to the Junior Year—not slighting any

—but does ***not attempt to take up all the lines*** of elective work in the last two years of his course. There is benefit from specialization, and by the time the student reaches the Junior Year ***the attention should be concentrated on a comparatively small number of subjects.*** But in order to do special and research work profitably it is necessary that thorough discipline of mind shall have been gained.

6. The student will be required to have ***fifteen hours of recitation*** each week, or what is equivalent thereto.

7. A large amount of ***research work*** will be prosecuted during the Junior and Senior years.

8. *The Degree conferred at graduation will generally be determined by the course pursued up to the close of the Sophomore year*, in all courses ***except the Letters.*** If previous to that time the student has taken the studies of the Classical Course, his degree will be "Bachelor of Arts;" if Latin Scientific, it will be "Bachelor of Philosophy;" if Scientific, it will be "Bachelor of Science." The Junior and Senior studies are largely of a ***university character,*** preparing the student for independent investigation when from graduation he must carry forward his studies without the presence and guidance of a living teacher. The lines of study provided have been made so broad and varied that the ***candidate for any of the professions,*** as well as the business man, can obtain here the scholarship which will best fit him for his chosen and anticipated mode of life.

But students studying for the A. B. degree will be expected to select a considerable amount of Classical work in the Junior and Senior Years. The same principle will hold when any other degree is sought—choosing branches of study in harmony with work previously done.

It will be seen that the order in which some of the studies are pursued is not quite the same as that adopted in many institutions; but no confusion grows out of this arrangement, as all the studies are taught in contiguous years. ***Those who***

have pursued Latin and Greek before any of the modern languages find no inconvenience in taking up these modern languages at any point in their course. Whatever may have been the order of study in the High Schools, the classification will depend on the ***amount and value of the work done,*** not on the fact of ***pursuing the precise branches laid down in our Preparatory School.*** Students who have prepared for college in the English Course can change to a course containing more language because of advantages for studying the same in our Preparatory School. They will, however, have less time for pursuing elective studies.

ACADEMIC DEPARTMENT.

This department is provided for students ***who do not wish to classify*** in the Preparatory School or College.

It accommodates two classes of persons:

(1) Those who do not propose to pursue an extended course, intending to spend only a short time in the Institution.

(2) Students who desire to make a specialty of certain lines of work, such as Mathematics, or Science, or History, etc.

There are the same requirements for admission as to age and scholarship as in the Preparatory School and as to age in the College. ***Any of the classes of the Institution*** are open to academic students without reference to the tabulated order, in view of the fact that they are not candidates for a degree, *provided* the scholarship already gained will enable them to carry forward the work successfully. No tuition is charged, but in addition to the regular incidental fee the ***matriculation fee of five dollars*** must be paid if College studies are pursued. We consider it best for the student to take up the work in the order of our tabulated courses, and ***all the work thus provided,*** but as circumstances sometimes exist to prevent this we make provision, as above stated, for limited lines of study.

BRIEF OUTLINE OF WORK PROVIDED FOR IN THE TABULATED COURSES OF STUDY.

MODERN LANGUAGES.

FRENCH.

I. ***Freshman French.*** Grammar, (Whitney) reading and composition. About—George Sand—La Fontaine. Reading at sight. 5 hours, Fall Term. 3 hours during Winter and Spring.

II. ***Sophomore French.*** Alfred de Musset—Balzac, Historical grammar.

III. ***Junior and Senior French.*** Plays of Corneille, Racine, Moliere. Lectures, themes and collateral reading. 3 hours during Fall and 2 hours during Winter.

IV. A general course in reading French. Different books of different authors to be read and studied. 2 hours Spring Term.

GERMAN.

I. ***Second Year German.*** Sheldon's grammar, reading and composition. Heyse—Mugge—Zschokke—Fougue. 5 hours throughout the year.

II. Writers of the nineteenth century.—(Prose and poetry.) 3 hours Fall and Winter Terms of the 3d year.

III. German Prose—Gottschalk and Gustav Freytag. Reading at night and composition. 3 hours of the Fall Term of the 4th year.

IV. Cotinuation of the Fall Term of the same year with the addition of Gore's or Hodge's German Scientific Reader. 3 hours Spring Term 4th year.

V. Introduction to the great German writers. 3 hours Winter Term of the Sophomore Year.

VI. General History of German Literature. Lectures,

themes and collateral reading, to be divided into different years.

The first year the study of the Middle High German Literature will be studied—Nibelungenlied—Kundren Iwein, etc. Throughout the year, 3 hours.

ITALIAN.

I. Toscani's Grammar. Composition. I Promessi Sposi.

II. Grammar. Selections from Ariosto, Boccacio, Petrarca and Dante.

SPANISH.

I. Jose's Grammar. Composition. El Eco de Madrid, Gil Blas.

II. Grammar. Selections from Calderon, Lope de Vega, Cervantes.

ANGLO-SAXON AND EARLY ENGLISH.

I. Elementary Course. Sweet's Anglo-Saxon Primer, First Middle English Primer.

II. Advanced Course. The Anglo-Saxon Chronicle (Skeat's edition), Caedmon's Exodus (Hunt's edition).

The French and German courses not marked "Required" can only be taken by students who have been studying French and German for at least two years.

ANCIENT LANGUAGES.

LATIN.

Latin is pronounced according to the Roman method.

Required.

I.

The work of the first year aims to secure for the student a considerable vocabulary, an accurate knowledge of the common forms of the language, an intelligent understanding of the general principles of syntax, and the ability to translate

easy Latin at sight, and that which is more difficult with the aid of legitimate helps.

The text books in this year are Bellum Helvetium by Lowe and Butler, Harkness Standard Latin Grammar, Collar's Gradatim, Riggs' In Latinum, and Kelsey's Cæsar.

II.

In the second year the study of Cæsar, the grammar, easy sight reading, and of composition is continued the first and second terms, completing the first four books of Cæsar, the second invasion of Britain from the fifth book, and the second invasion of Germany, etc., from the sixth book.

In the third term Sallust's Catiline is read. Herberman's edition of the Catiline is the one used at present.

III. FRESHMAN YEAR.

Cicero (Harkness) [three orations] and Composition (Daniell)—first term—four hours.

Cicero (Harkness) [three orations] and Composition (Daniell)—second term—four hours.

Ovid (Kelsey) [about 1,500 lines, mostly from the Metamorphoses—third term—five hours.

IV. SOPHOMORE YEAR.

Vergil (Greenough) [Æneid, Books I and II]—first term—four hours.

Vergil (Greenough) [Æneid, Books III, IV and V]—second term—four hours.

Vergil (Greenough) [Æneid, Book VI], Cicero (Kelsey) [De Senectute]—third term three hours.

Elective.

1. Horace (Odes)—first term—two hours.
2. Cicero (Tusculan Disputations, Book I)—first term—two hours.
3. Livy (Book I)—second term—two hours.
4. Latin Literature (with extracts from principal authors)—second term—two hours.

5. Terence (Andria or Adelphi)—third term—two hours.
6. Cicero (Epistles)—third term—two hours.
7. Tacitus (Annals)—first term—two hours.
8. Pliny (Epistles)—first term—two hours.
9. Horace (Satires)—second term—two hours.
10. Suetonius—second term—two hours.
11. Livy (Book XXI or XXII)—third term—two hours.
12. Horace (Epistles)—third term—two hours.
13. Christian Hymns—first term—one hour.
14. Catullus—second term—one hour.
15. Composition—third term—one hour.

N. B. Other works of Cicero, etc., may be read, or courses in other authors, as Plautus, Juvenal, etc., may be given if there is a sufficient call for them.

GREEK.

I.

1. Historical Selections—Xenophon and Herodotus.
4. Demosthenes.
7. Homer's Illiad.
10. Greek Drama.
13. Greek Testament.
16. Greek Literature.
19. Hebrew.

II

2. Historical Selections—continued.
5. Plato's Apology and Crito.
8. Homer's Odyssey.
11. Greek Drama.
14. Greek Testament.
17. Greek Literature.
20. Hebrew.

III.

5. Lysias and Isocrates.
6. Thucydides—Speeches in.
9. Pindar.

12. Plato, Pædo, or the Tenth Book of the Laws.
15. Greek Testament.
18. Greek Literature.
21. Hebrew.

The above courses in Greek and in Hebrew are arranged according to the succession of terms in which they regularly come—"I," Fall Term; "II," Winter Term; and "III," Spring Term. The numerals 1, 2, 3, indicate the courses of the Freshman year; 4, 5, 6, those of the Sophomore year; 7, 8, 9, those of the Junior year; 10, 11, 12, those of the Senior year. From 13 on, the courses are collateral or elective. Those from 7 to 12, that is, of the Junior and Senior years, are also elective. Course 1 is always to be taken first. To find the number of hours a week allotted to each course in each term, turn to the "Courses of Study."

The methods used in teaching are based upon a firm conviction that it is *not* best to make the work dry and difficult; that it *is* best to aim at a good reading knowledge for the student; to introduce him early to a large amount of reading; and to let his knowledge of the language grow largely out of the text itself, rather than be confined to the outside help of books. More minute study comes later, as the aptitude for it is developed.

Careful attention is given to matters of history, archæology, and mythology, related to the texts read.

There is, everywhere, a free use of maps and charts, of which the Department has a good and constantly increasing supply.

Collateral research is required at every stage of all parts of the work.

Philology is one recitation a week, running through the year, beginning with the facts, and proceeding from them to the principles.

In Hebrew the same principles and methods govern as in Greek.

MATHEMATICS.

The Preparatory work covers the completion of arithmetic, three terms in algebra, and three terms in geometry.

The following courses are provided in the collegiate department:

1. Advanced Algebra—two courses of *five hours each.* Fall and Winter Terms.

2. Plane and Spherical Trigonometry—a course of *seven hours.* Winter and Spring Terms.

3. General Geometry—a course of *seven hours.* Winter and Spring Terms.

4. Differential and Integral Calculus, with their applications to Geometry and Physical Science—a course of *five hours.* Spring Term.

5. Advanced Calculus—a course of *three hours.* Fall Term.

6. Advanced Calculus—a course of *three hours.* Winter Term.

7. Modern High Algebra, including determinants—a course of *two hours.* Spring Term.

8. Quaternions—a course of *three hours.* Fall Term.

Courses 1, 3, 5 and 6 may be elected by students in whose General Courses they are not required studies.

ASTRONOMY AND APPLIED MATHEMATICS.

ASTRONOMY.

1. A course of *three hours* during the Winter Term. The gaining of an accurate and comprehensive idea of the Framework of the heavens is insisted upon.

2. A course of *three hours,* during the Spring Term, being a continuation of the above, in descriptive astronomy, special attention being given to modern methods and results.

3. *Elective.* A course of *three hours* per week during the entire year, including a large amount of practical work in the observatory, solar and lunar eclipses, reductions for obtaining

time, latitude, longitude, etc. So far as possible, reductions are based upon the observations taken by the individual student.

Students desiring to do more advanced work will be given special derection in various lines of investigation, and will be granted free use of the observatory equipment in the prosecution of their studies.

PHYSICS.

1. A course of five hours during the winter term in elementary work, covering Mechanics, Hydrostatics, Pneumatics, Electricity and Magnetism.

2. A course of five hours in the spring term in Sound, Heat and Light.

3 and 4. A course of three hours in the winter term and three hours in the spring term, largely mathematical in treatment. The special subjects taken up are elected by the class, but the same subject will not usually be taught in successive years, thus enabling students to cover the whole field.

5. A course of one hour, in the spring term, in Sound in its relation to music.—This is a Conservatory class.

SURVEYING.

Elective.—A course of three hours during the spring term in practical surveying.—Land, Railroad, Leveling, Tepographical Plotting, Field work.

CHEMISTRY.

Required.—1. Chemistry of the Non-Metals three times per week, together with Laboratory practice in the grouping and separating of Metals and Acids, two days each week and two hours each day, Fall term.

Elective.—2. Qualitative Chemical Analysis, Winter term. Laboratory practice, 2 hours each day of the week.

3. Course 2 continued, 3 days per week during Spring term.

4. Organic Chemistry, Laboratory work two hours per day, five days each week, Fall term.

5. A three hours course in Quantitative Chemistry, Laboratory work, six hours per week, Winter term.

6. Mineralogy, descriptive and determinative; Laboratory work two hours per day, three days each week, Spring term.

7. Sanitary Science, lectures three days each week, Fall term.

8. Advanced work in the above courses will be given to students showing special proficiency.

Students expecting to teach will be given work to prepare them in chemical manipulations, the care and management of a Laboratory, etc.

BIOLOGY.

Required.—As preparatory to the College work, a term's work each in Human Physiology and Systematic Botany is taught.

In Freshman Year all students are required to take Zoology four hours. Study from actual specimens is carried on as far as possible. Spring term.

Elective.—1. Microscopy, the practical study of the use of the Microscope in Biological Research. Each student is furnished with a Compound Microscope and other appliances for the preparation and mounting of objects for study; Winter term, two hours each day, three days each week.

2. General Biology, in which underlying principles are discussed and low forms of life, both animal and vegetable, studied. Two hours of Laboratory work each day, and three days per week, Fall term.

3. Animal Biology, a continuation of Course 2. Laboratory work two hours per day, three days per week; Spring term.

4. Vegetable Biology, also a continuation of Course 2, in which several type forms of vegetable life are studied. Laboratory practice two hours a day, three days per week; Spring term.

5. ***Research Class,*** for the discussion of current Biological topics, reviews of periodical literature, etc., will meet once a week, and a class will be formed, during any term, when a sufficient number apply for it.

It is desirable that Course 1 should be taken before 2, 3 and 4, and Course 2 should precede 3 and 4.

In Courses 2, 3 and 4, students are required to (a) collect their material as far as practicable, (b) observe and study the object itself, (c) make careful notes on all points observed, (d) make drawings of separate structures and diagrams showing their relations to other structures, and (e) embodying the knowledge thus obtained, and no other, in a written account.

Students who show special proficiency in Courses 2, 3 and 4 may continue the work as Collateral Research. Research work is now being done in Bacteriology, Animal Histology, Water Analysis, etc.

GEOLOGY.

1. Dynamical and Structural, Fall term, four hours per week.

2. Historical, Winter term, three hours per week.

HISTORY.

1. European History. 1500 to 1648. Lodge's Modern Europe and Seebohm's Protestant Revolution. 3 hours, 1st term.

2. European History. 1648 to 1740. Lodge, and Gardiner's English Revolution. 2 hours, 1st term.

3. European History. 1740 to 1815. Lodge. 3 hours, 2d term.

4. European History since 1815. Muller's History of Recent Times. McCarthy's Epoch of Reform. 3 hours, 3d term.

5. Political and Constitutional History of the United States. Text-book and lectures. Studies by members of the class. 3 hours, 2d term.

6. General History of Civilization. Text-book and lectures. Open only to advanced students. 3 hours, 1st term.

POLITICS AND ECONOMICS.

1. Political Philosophy. Lectures, 2 hours, 1st term.

2. Political Science and Comparative Constitutional Law. Lectures and text-book. Burgess or Wilson. 3 hours, 2d term.

3. Practical Politics. Lectures and Studies from the class. 3 hours, 3rd term.

4. International Law. Woolsey. 4 hours, 3rd term.

5. Political Economy. Text-book and lectures. 4 hours, 1st term.

6. Finance. Lectures and text-book. 3 hours, 3rd term.

7. Research. Courses of two hours each term. Original studies from the class; reports on books and articles from the periodicals; suggestions as to methods of work; etc. Credits of from one to three hours at the discretion of the instructor.

DEPARTMENT OF ENGLISH.

We are now offering courses in English Literature and Rhetoric equal to those offered in the best colleges and universities in the country. After the elementary courses in English and American Literature and in Rhetoric and Composition have been creditably taken the following advanced courses are offered. A course in Rhetoric, in which the laws of Mind, of Idea and of Form are philosophically discussed. Composition and critical readings from good authors are required in order to call out the practical side of the discussions. An advanced course in the history of English Literature, covering two terms work. The course is designed to show how history affects literature and language, hence the various periods of the formation of the English Literature and language are taken up and critically studied in their relation to philosophy, re-

ligion and politics. Special attention is given to the characteristics which mark the changes from one period to another, and to the introduction and rise of new features.

One year is given to the study of Masterpieces. The fall term is given to English miscellaneous masterpieces, the winter term to Shakespeare's plays and the spring term to American masterpieces. The work is closely allied to research work and is for advanced students only. Each student is required to write an essay and a critique. The work is designed to develop the power of literary criticism, hence the essay will be a criticism on the masterpiece assigned to the student. Forty-five minutes are allowed for the reading of the essay, after which it is deposited with the instructor, and becomes the property of the library. The masterpieces are informally and critically discussed in the class room, and a lecture of one hour delivered on each of them.

The following is the outline:

RHETORIC.

1. Elementary Rhetoric and Composition. 5 hours per week. Fall term.

2. Science of Rhetoric. Advanced Course. 3 hours per week- Fall term.

Course 2 is continued through the Winter term two hours per week.

ENGLISH LITERATURE.

Required.—1. Study of authors with associated history, with the reading of selections from each author. 4 hours per week. Fall term.

Elective.—1. History of English Literature. 3 hours per week. Fall term.

2. Course 1 is continued through the winter term 3 hours per week.

3. English Masterpieces. One 2 hour session and one 1 hour session per week. Fall term.

4. Shakespeare. One 2 hour session and one 1 hour session per week. Winter term.

AMERICAN LITERATURE.

Required.—1. Study of authors with associated history and readings. 3 hours per week.

Elective.—2. American Masterpieces. 2 hours per week. Spring term.

PHILOSOPHY.

Required—I. Psychology—Method, by lectures and daily examination of standard authors.

Analysis of Mental Phenomena and Faculties specially insisted upon—first half of the year.

II. Logic—Inductive and Deductive—the identity of fundamental principles explained, and the special office of each form of Logic given. For outlines of the subject, Jevons; for fuller study of special subject, Mill and Lotze—half a year.

Elective.—III. History of Philosophy.—This must be preceded by Psychology in order that there may be a standard of Philosophy in the mind of the student with which to compare the theories advanced by the different Schools. A thorough analysis of each school will be presented, with the twofold aim of learning the History of Philosophic Thought, and determining what is true in the different systems studied. The first half of the year—several works used.

IV. Moral Science.—The fundamental principles will first be considered, then their application to human life. This study follows Psychology, and is pursued in the latter half of the year. One term—Calderwood and Porter, and other authors included.

V. Theism—Bowne used as a text book—taught during the Spring term.

VI. Evidences of Christianity—a careful scrutiny of the several classes of evidence relied upon, with the study of the bearing of the same on the question of a divine revelation as appearing in the Bible.

SCIENCE ASSOCIATION.

Recently a great step in advance has been made in the organization of a Science Association for the promotion of advanced work in the various departments. This Association is divided into sections devoted respectively to Natural and Physical Science, to Language and Literature, to Political and Social Science, etc. The sections meet separately each week for an hour and a half for a presentation of reports on the latest books and periodicals, and for the reading and discussion of original papers. Provision is made for a general meeting of the whole association once in each month. The membership consists of students (mainly from the upper classes), members of the Faculty, resident graduates, and such other residents as may be interested in and prepared for the work. This association has already proved of great value in stimulating students and teachers to keep up with the latest work being done in the various fields of study, in providing opportunity for the fuller investigation of subjects which can be little more than touched upon in the class-room, and in giving to all practice in that thorough and independent working-up of special topics which is necessary in the future work of those who enter the learned professions. The research work upon which we have for sometime laid stress will in the future be carried on mainly, though not fully, through this association. It is intended to organize sections in connection with all of the more advanced work of the institution. We have been gratified to find that all earnest students deem it a very desirable thing to gain membership in the association. They are put on a more independent plane of scholarship, and acquire facility in the higher realms of work.

DEPARTMENT OF ORATORY.

The college has, from the first, felt the need of work in ***Oratory in connection with its courses of study.*** No greater perversion of meaning exists than that which calls Elocution simply an accomplishment. There is no branch of education which touches practical life more constantly and vitally. The fact that speech is common to all races of men shows its great value. Colleges have not given that attention to the study of the science of speech and the cultivation of the powers of expression that the subject demands. This grows in part out of the fact, perhaps, that the country is flooded with men, called elocutionists, who have introduced unnatural mannerisms into speech, perverting thought rather than giving expression to it. The real art of expression is the adaptation of voice, gesture—the physical—to the meaning of the sentence or discourse spoken. The end sought is the objective presentation of that which is subjective—the accurate unfolding or declaration of thought. Dr. Holland says, "Thousands of young men and women are graduating from our institutions, expecting to become professional speakers, who do not stop to think that to become a successful public speaker requires as much special preparation as for any given department of professional life."

Cicero asserts, in substance, that manner is of more importance than matter. Bishop Butler speaking of the Elder Pitt's celebrated speech on the 'Stamp act' said: 'There is nothing which an ordinary man might not have said; it was the *manner*, and the manner *only* which produced the effect.' "

Possibly some of these statements may be considered slight exaggerations, but it is certainly true that in ***the best scholarship for practical ends culture is two-fold,*** thought and expression of thought. It is evident that, subjectively, mental energy loses half its power when hidden behind imperfect

and faulty modes of expression; we think in words and sentences. And it is also true that most scholars desire to employ knowledge in such a way as to impress the public most fully.

The Department of Oratory has opened in the college with very gratifying evidences of favor. Its work is elective, and has been chosen by a large percentage of students in the literary courses. The opportunity for supplementing the Department work in Elocution proper with the English Classics, Psychology and Voice Culture, will give a breadth and scope for the course of instruction which schools distinctively elocutionary do not offer. It is proper to mention here that an opportunity of appearing in weekly public recitals in connection with the exercises of the Conservatory of Music is given those whose work is of a superior order. Each term closes with a special recital.

Method of Instruction.—This is similar to that employed by the late Lewis B. Monroe, Dean of the Boston School of Oratory, with such adaptations of the principles of expression formulated by Francois Delsarte as are considered most essential and practical.

A Complete Course in Oratory embraces vocal and physical gymnastics, insuring culture and flexibility of voice and bodily action; ***sight reading,*** for securing mental promptness and accuracy; expression, forensic, dramatic, pantomimic.

The ***Growing Necessity*** for skillful teachers of expression in the graded schools, not to speak of the acquirement of that which constitutes a stepping stone to eminence in professional life, and a graceful introduction into the first literary circles argue strongly in favor of a careful study of the "Art of Expression."

The Institution desires to develop the Department of Oratory into a school of oratory. It will probably take some time to accomplish this fully, but the following is a tentative effort in this direction. We print it, ***not as final,*** in the scope

and form of work to be done—which will probably undergo great changes—but as showing to some extent the elements which enter into the problem. We invite criticisms and suggestions, hoping that in a short time we may be able fully to mature our plans. We solicit the attention of the learned public, particularly teachers, to this subject, that we may understand the wants to be met.

GENERAL OUTLINE OF COURSE IN ORATORY.

FIRST YEAR.

FIRST TERM.	SECOND TERM.	THIRD TERM.
Analytic Expression.	Analytic Expression.	Synthetic Expression.
Monroe's Sixth Reader.	Monroe's Sixth Reader.	Monroe's Sixth Reader.
Presentation of Individual Work. (With Criticism.)	Development of Action. Recitative and Declamatory Work.	Public Presentation of Recitative and Declamatory Work. (With Criticism.)
McIlvaine's Elements of Oratory.	McIlvaine's Elements of Oratory.	McIlvaine's Elements of Oratory.
The above outline includes the cultivation of voice, development of individual conception, and a thorough drill in the exemplification of the Principles of Inflection, Emphasis, Rate, Pitch, Stress and Voice Quality.	The second term will be a continuation of the principles Theoretic and Exemplified with more specific instructions regarding Dramatic Action. Action is never left out of consideration in the study of expression.	The third term should enable the student to secure some of those synthetic and normal results which spring naturally from proper analysis. It is illustrated with selections in Transition and Style.

SECOND YEAR.

Ross' Manual of Expression.	Ross' Manual of Expression.	Ross' Manual of Expression.
Dramatic Action and Phil. of Expression.	Delsarte.	Delsarte,
Original Work.	Original Work.	Original Work.

The above course may be completed in two years and carry forward some regular College work.

We hope soon to fill up and arrange the course so as to warrant the giving of a diploma or granting a degree.

COMMERCIAL DEPARTMENT.

The object of this department is two-fold:

1. It gives to all who may wish to engage in business pursuits an opportunity to fit themselves in the most practical manner possible.

2. It affords an opportunity to all students at their option to take some commercial studies as a part of any literary course, and receive credit for the same.

The benefits of a business education are becoming more apparent each year. The rapid increase in our population is causing a corresponding growth in our commercial transactions. This increased activity in business circles must necessarily open the way to many a young man and young woman for a successful entrance into the active duties of life. The first question which every thoughtful young person will ask is, How may I best fit myself for success in life? The answer, Educate yourself.

Whatever you may choose as your life work there is no question but that a practical business education will be of value to you.

One reason why so many commercial school graduates are not fitted for work is because of the short courses which so many schools present. Two to four months is not time enough in which to learn a profession. Practice makes perfect, and it requires a great deal of it at that. The business course here is designed to cover a period of nine months. In its preparation we have had in mind not simply a trained book-keeper, but it has been arranged with the aim of developing the business capacity of the student by a thorough course of training. We impart a knowledge of the laws which govern business transactions; a knowledge of civil government, grammar, mathematics, correspondence, penmanship, business forms, etc.; and thus by a broad and systematic

training our students will be more successful men and women, and worthier citizens of our country.

By some the course can be finished in less time. This depends upon the ability, experience and application of the student.

Anyone with sufficient ability to pursue the prescribed studies can enter at any time and take any study he desires; but as some of our classes are formed anew at the beginning of each term, it will be to the student's advantage to enter then, if possible to do so.

COURSE OF STUDY.

FALL TERM.	WINTER TERM.	SPRING TERM.
Book-keeping and Business Practice.	Book-keeping and Business Practice.	Book-keeping and Office Work.
English Grammar.	English Grammar.	Commercial Forms.
Penmanship.	Penmanship.	Penmanship.
Commercial Arithmetic.	Commercial Arithmetic.	Commercial Arithmetic.
Correspondence.	Commercial Law.	Civil Government.
Spelling.	Rapid Calculation.	Rapid Calculation.

NOTE.—*Beginning Classes* in book-keeping and penmanship are formed at the commencement of each term, beginning classes in the other branchcs are formed at the commencement of terms in which they do not regularly occur when there is sufficient demand for them.

Book-keeping.—This subject is given the prominence in the school which it demands by its importance as a branch of business education. The student is first given work in the THEORY DEPARTMENT, where he is taught the principles of single and double entry book-keeping by means of text book work, class recitation, talks and blackboard illustrations. After he has become familiar with the theory he is given work in the

BUSINESS PRACTICE DEPARTMENT,

where the principles of actual business are fully illustrated and the student is afforded an opportunity to apply the knowledge acquired in the theory department. He uses no text book, but conducts personally a business on his own account, and is thrown entirely on his own resources. What he learns

here by experience he will never forget. The system is so arranged that there are no two sets of books in the school that are alike, and hence there can be no opportunity for copying results. Only real values bring out and attest the ability and sagacity of the person concerned. By this method the student is taught to think and act for himself, consequently his powers and capabilities are developed to a remarkable degree.

Upon entering this department the student is furnished with a cash capital, together with all the blanks and printed stationery necessary for the transaction of business. Aside from the set of books, the following business forms will be used during the Course: Notes, Drafts, Receipts, Checks, Bill Heads, Shipping Invoices, Certificates of Deposite, Stock Certificates, Deposit Slips, Insurance Policies, Bills of Exchange, Account Sales, Statements, Deeds, Mortgages, Leases, Bills of Sale, and in fact every form ordinarily used in business. Our merchandise has a given value, and is bought and sold at a discount proportionate to the supply and demand. The school is also supplied with college currency. The capital with which the student has been furnished he now deposits in one of the College banks and takes a Pass Book. He next leases a place of business and at once begins to job. He buys from the student merchants at the best discounts possible, and finds in the commercial exchange customers for all the goods he may have to sell. He is shown how to properly fill out the various forms, make the different entries, correctly post the same, make out statements and close the Ledger. He goes through this process several times until he becomes familiar with it and is able to finish a set without help. He is also compelled to do some jobbing in each set for the purpose of increasing the number of the transactions, and enabling him successfully to handle large numbers in trial balances, advances through the different lines of trade in each of which he finds some principle which is as yet new to him. This work necessitates the use

of a Bank, Wholesale Merchandise Emporium, Commercial Exchange, etc. These offices are in charge of advanced students and are provided with large blank books and all necessary articles for transacting the business.

Business Arithmetic.—To be quick and accurate at figures is an accomplishment that all should possess. For this reason considerable prominence is given to this subject in our course, and aside from the regular text-book work we endeavor to make the student proficient in this direction by means of class drills in rapid calculations and short methods.

Commercial Law.—We do not aim to make lawyers of our students, but we do endeavor to give them such a knowledge of law as will enable them to transact ordinary business with intelligence. The subjects to which special attention is given are Contracts, Negotiable Paper, Agency, Partnership Shipping, Insurance, Liens, Real Estate Conveyances, etc. The laws in regard to these subjects are of such importance to the business man that he should have a knowledge of them.

Grammar and Correspondence.—To be able to write a business letter which is well worded and the parts of which are properly arranged, is one of the important items in a business man's education. The student is instructed and drilled in the form and composition of all kinds of business letters.

Civil Government.—The student receives thorough instruction in this very important branch, without a knowledge of which no man is competent to assume the duties of citizenship.

Business Writing.—We teach a plain, rapid, bold business hand, such as is called for in correspondence and book-keeping work. We aim at neatness, legibility and rapidity, to the total exclusion of all superfluous lines and flourishes. We are also prepared to accommodate any one desiring to do work in ornamental penmanship.

Spelling.—A word misspelled will greatly tend toward lowering a person's educational standing in the estimation of a refined and experienced man.

In teaching spelling we use a series of lessons forming a complete collection of difficult common words, with definitions, pronunciations, and rules concerning capitals.

SHORTHAND AND TYPEWRITING.

The full shorthand course includes ***shorthand, typewriting, correspondence,*** and ***spelling.***

Shorthand.—In the Commercial Department the Eclectic Shorthand is employed. We endorse the following propositions, which, though prepared by its special advocates, we insert in the Year Book:

1. IT IS THE BRIEFEST.
2. IT IS THE SIMPLEST.
3. IT IS THE EASIEST TO WRITE.
4. IT IS THE MOST LEGIBLE.

PROP. 1.—In December, 1880, *Browne's Phonographic Monthly*, then the leading stenographic journal, published comparisons of twenty-five of the best systems in existence, giving the writing in all the systems, of a stanza of five lines. The Eclectic writing of the stanza contained, by actual computation, 14 per cent less than the briefest of the others (Grahams's), and 40 per cent less than the longest (Lindsley's) and was 30 per cent briefer than the average of all of them; *hence the briefest system.*

PROP. 2.—It is the only system of the twenty-five which is based on the English alphabet. It contains less than fifty word signs, and has no exceptions to rules; *hence the simplest system.*

PROP. 3.—*It is the only system of the twenty-five which dispenses with vertical characters*, writing with characters in three directions instead of four, and the only system of connective vowels similar in form to the consonants, and with a single exception the only light-line system; *hence the easiest system to write.*

PROP. 4.—It is the only system of the twenty-five that makes as free use of vowels as of consonants, and while writing words with less strokes, *still by its principles writes words*

more fully and with less memorizing of word signs than any other of the twenty-five. It also has no verticle strokes to become confounded in rapid writing with similiar oblique characters; *hence the most legible system.* The average time necessary for the completion of amanuensis course about four months; reporter's course, longer.

Typewriting.—Our students have the use of Remingtón and Yost Typewriters, the best in the market to-day.

DIPLOMA AND POSITIONS.

Upon the satisfactory completion of the prescribed business or shorthand course, the student is granted a diploma. We do not guarantee positions to our graduates—no honorable school will do this—but we always take pleasure in reccommending or aiding a worthy student, who is well qualified, in every effort to secure a situation, There is an increasing demand for amanuenses and bookkeepers who are willing to work, and one who thoroughly prepares himself is almost sure of obtaining profitable employment.

Special Advantages.—This school being one of the departments of Albion College, it possesses several advantages not to be found elsewhere. The students all meet together once each day for chapel exercises. The benefits to be derived from attending the college literary socities are inestimable. Some of the best musicians and most eminent lecturers may be heard here each term. The college library containing over *nine thousand* volumes may be used by all students. All students taking a full course may pursue any study in the regular literary course free of charge.

RATES OF TUITION.

Business Course.—Tuition for full work in the course, each term being from ten to fourteen weeks in length:

First term, in advance..... $20.00
Second term, in advance..... 17.50
Third term, in advance..... 12.50

Books and Stationery.—The books and stationery required for the entire course will cost $10 or $12.

Shorthand Course.—Shorthand and typewriting, including spelling and correspondence, per term $15
Shorthand and typewriting, supplemental to full course, per term, for those who desire it..... 10
Books and stationery for same will cost from $1 to $2.50.

Special Classes.—Besides the regular course there will be classes to accomodate students who may wish to do special work with us, at the following rates:

Book-keeping, per term, 5 lessons a week.....$5.00
" " " 3 " " 4.00
Penmanship, per term, 5 hours a week..... 3.00
" " " 3 " " 2.50
Commercial Law or Arithmetic, (per term)..... 3.00
Typewriting alone, per term..... 5.00

We earnestly request all persons who contemplate entering a school of this kind to visit Albion College, see the Principal and teachers, inspect the workings of the school, or write us before entering any similar institution. Visitors are always welcome.

For any further information concerning this department address Chas. L. McClellan, the Principal.

CONSERVATORY OF MUSIC.

The work done in this department consists principally of instruction on the Piano, Organ and Violin, instruction in Vocal Music, in Harmony and Voice Culture.

Piano.—It is the chief aim of the Conservatory to teach both the Science and the Art of Music in such a thorough and systematic way that they shall be, *what they so often are not, of available* and *practical* use to the student after having completed a course. Great care is taken to secure a correct technique; also a proper position of the person, hand and arm while the pupil is seated at the instrument.

Careful attention is given to the developement of the muscles of the hand and fingers, and in acquiring flexibility of fingers, wrist, etc. In short, the methods which have for so many years made the German Conservatories famous, are closely adhered to. Much time is given to the cultivation of a taste for the best forms of classic music.

The Course in Piano Music consists of ***Seven Grades,*** each based upon such studies and selected pieces as form the standard of the various degrees of proficiency at the best institutions of a similar kind. Upon entering, each student will be examined and graded accordingly, while promotion is not limited by time, but depends entirely upon the progress of the student. A student of ability can, with proper application, almost finish the first three grades in one year. In most cases four years will be sufficient to complete the course. It is advisable that students should begin music with the determination of completing, at least a certain part of the course, if not the whole.

Instruction is given, both in ***private lessons and by "class-teaching,"*** according to the preference of the student. The classes consist of either two or three pupils.

Pipe Organ.—Every facility for systematic and thorough instruction to acquire a mastery of all kinds of organ music is afforded the student, and a large pipe organ is at the disposal of the Conservatory. A knowledge of harmony is indispensable to successful organ study.

Violin.—A regular progressive course is laid out which is pursued in the Conservatory. Classes also are formed for ensemble playing, which enables the student to become familiar with the best compositions of Violin literature, and also offers opportunities of playing at the Recitals and Concerts of the Conservatory.

Orchestra.—As a part of the educational facilities of the Conservatory, there is also maintained, in efficient organization, ***a complete Orchestra.*** In this orchestra there are at present nearly fifty performers. These consist principally of students in the College, but some of the members reside in the city of Albion and have been connected with the orchestra for years.

Although orchestral music is generally transferred to the piano, yet the full effects of the Orchestra cannot be given by that instrument. Orchestral music is written in a special form and character, both to embody the idea of the composer, and also with reference to the instruments that are to express and interpret that idea. These instruments have a tone-color peculiarly their own, which is lost by transference of the music to the piano. The ***Orchestra thus opens to students of music an entirely new field of instruction*** and culture which is of great value. It is, however, only the more advanced scholars who can advantageously avail themselves of its benefits, and only these, therefore, are allowed to become members.

Vocal.—Important changes have been made in the Vocal Department. Especial attention will be given to the development of the voice, having special reference to a proper method of breathing, proper emission of tone and accurate attack of pitch.

By referring to the list of students in *voice culture* it will be seen that this department is rapidly growing. Very many students who enter upon the study of the principles of vocal music, or join the chorus class, come to appreciate the desirableness of special voice training. All who desire to fit themselves for singing in church choirs, for teachers of vocal music, or for professional singing in any capacity, can here obtain the instruction and culture desired.

For all students desiring to study the principles of Vocal Music *rudimental classes* are organized, continuing through the year—the tuition for such instruction being merely nominal—to provide music for the most efficient movement of the class. After completing the study of the rudiments the students are admitted into the *general chorus* in which there it no tuition. The work of the chorus consists of the rendition of the higher forms of vocal music.

A model or juvenile class in vocal music has been formed, so as to prepare young persons for more extended study of music when they enter regularly upon the work of the conservatory. These young persons are thus preserved from contracting erroneous methods which would impair their progress in the future. A slight charge only is made for such instruction, as the conservatory expects to reap benefits in another form from this work in the future. These children are not catalogued in the Year Book.

All music students are organized .into a *Theory Class,* which meets each week for special instrucfion.

Students intending to teach music receive thorough instruction in the *art of teaching,* a special class being organized for this purpose.

During the year there are *several Public Recitals* which are especially intended to improve the taste for, and promote the appreciation of the best masters. Haydn, Mozart, Beethoveu, Bach, Mendelssohn and Schumann furnish the broadest subjects to express the depths and grandeur of musical con-

ception. The students are required to take an active part in these exercises. Also Recitals are given at the College by some of the most eminent musicians of Boston and other eastern cities, so that the student shall not fail to come into relation with the highest power of the art of music.

Aside from the regular lessons, there is a ***weekly drill of the entire Conservatory*** in the catechism of music. At these gatherings instruction is given which there is no time to impart in connection with individual or class lessons. There are also weekly rehearsals to drill and fit for public playing. The student thus gains confidence, his faults are corrected, and he is prepared to use to the best advantage the knowledge acquired.

Harmony.—The importance of this branch of study need hardly be enlarged upon. It treats of the construction, entrance and progression of chords according to established rules. It is subdivided as follows: Formation of scales, Intervals, Triads and Seventh chords with their inversions and resolutions, Cadences, Altered Chords, Modulations, Suspensions, Passing and Changing Notes, Organ Point and Harmonization of given Melodies.

Text Books.—Parker's Harmony, Jadassohn's Harmony, Ayer's Counterpoint.

The courses have been arranged so as to secure the greatest thoroughness and proficiency in music as a science and an art. Students are admitted for a single term, but all will see the advantage of taking a full course of instruction, including, not only the ordinary lessons given on the piano, organ or violin, but also harmony and counterpoint. The literary studies of the course have been selected with reference both to sound and varied scholarship and the accomplishments of learning.

Persons are admitted into the ***Musical Course directly, on***

application, and are classified according to their proficiency in music.

The following is the course in Piano music:

COURSE OF STUDY.

[Diploma given on its completion.]

GRADE I.—Foundation studies by Emery, Matthews' twenty lessons to a biginner, studies by Gurlitt, Kohler, Biehl, Loeschhorn.

GRADE II.—Kohler Op. 50, Duvernoy Op. 120, Loeschhorn Op. 65.

GRADE III.—Bertini Op. 29. Loeschhorn Op. 66. Heller Op. 47. Hasert Op. 50. Kohler Op. 60.

GRADE IV.—Loeschhorn Op. 66. Berens Op. 61. Kohler Op. 128. Hasert, Op. 50. Heller Op. 46.

GRADE V.—Czerny Op. 740. Loeschhorn Op. 67. Heller Op. 16. Kohler Op. 128.

GRADE VI.—Loeschhorn Op. 67—Op. 118. Cramer's Studies. Harmony, Musical History.

GRADE VII.—Cramer's Studies. Chopin Op. 10. Mosheles Op. 70. Kessler Op. 20. Clementi.—Harmony. Musical History. Counterpoint.

Text Books in Harmony—Parker's Theory, Jadassohn's Harmony, Ayer's Counterpoint.

Degree of Bachelor of Music.—The degree of Bachelor of Music will be conferred upon such students as, in addition to the foregoing, evince the skill and conception necessary artistically to perform the works of the most exacting character, and show an extended acquaintance with the science and history of Piano-Forte Literature and Piano-Forte playing, and pass examination in Harmony, Counterpoint, Musical Forms, Musical History and Acoustics. Aside from this, they must possess a good knowledge of Belles Letters, in-

cluding French, German and Italian. This will add about two years to the above tabulated course.

We call the attention of pupils to the following points:

Those who desire to get the largest benefit from study in this department should be present on the first day of the term. They can be received later, but it is impossible to repair the loss sustained.

As the teachers are employed on fixed salaries no abatement from the charges for tuition can be made except in case of *protracted illness of the pupil*, when the loss will be shared with him.

Tuition must be paid in advance.

The teachers do not give instruction to persons who are not members of the Conservatory.

The course in Piano Music as laid down can usually be completed in four years, but no fixed time can be prescribed. This depends on the aptness of the pupil, and his fidelity to the work.

The course of instruction in Organ Music, Violin Music, or in connection with any other instrument, includes Harmony, Counterpoint, Musical History, etc., the same as in the Piano course and must be pursued in full in order to get a diploma of graduation.

SCHOOL OF PAINTING.

The aim of this department is to conduct the pupil with thoroughness from the simplest rudiments up to a knowledge of the higher branches of art, giving as far as possible a perfect understanding of all the work entered upon. It will be seen by reference to the Course of Study in Painting, that the student receives instruction in the elementary courses of drawing. These can be taken in the class with others who are in this and the Literary Departments. Then, special and individual attention is given to the study of ***object drawing, linear and aerial perspective; landscape, figure, flower and fruit painting, in oil, water colors and pastel; painting and crayoning portraits, pen drawing and India ink wash drawing for reproduction, decorative painting and design.***

The Art Department connected with the college adds much to the needed practical side of education.

Prof. Thompson of the Worcester Technical School tells us that "A boy who spends two hours a week in drawing, and the rest of the time in working at the bench, learns his business faster, and becomes more skillful in it, than one who works all the time." Again, "It is calculated that the productive efficiency of every machine shop would be increased thirty-three per cent if every journeyman could read any common working drawing and work by it."

Mr. Ware, Professor of Architecture in the Boston Institute of Technology, says "Drawing is an invaluable element in general education. To the working man it is of the greatest practical use; it makes him a more intelligent and serviceable workman. If he attains to real skill in the use of his pencil, and developes the tastes and the talents that cannot without the training be either discovered or made use of, he becomes a valuable person at once. Every branch of our manufactures is suffering from the want of just this intelligence and skill.

Says Prof. Bail, of Yale College, "The whole nation is deploring the lack of good ornamental designers. We are becoming tired of sending so many millions to Europe for articles that we might produce cheaper at home if we had skilled designers. This branch of industry affects articles for the homliest use."

But it is well known that art study, besides having a tangible value in its relations to manufacture, is designed to promote improvement in taste. The highest and best purpose of any attainment is that which ministers to the intellectual and spiritual wants of man; few channels being more permanent than the perennial delight afforded by good art.

Painting can not be successfully followed by one ignorant of such truths in the sciences as bear directly upon the art. Anatomy, Natural Philosophy, Botany, Chemistry, etc., cannot be taught in the private studios as effectively as by departments having these studies in charge. These studies can be pursued by students of painting without interfering with their hours for lessons.

Landscape study from nature is much more easily and agreeably accomplished here at Albion than in the large cities, as the college buildings are located near the open country and many beautiful scenes are found along the Kalamazoo river, not a quarter of a mile from the studio. Especial attention is given to this branch during the spring and fall terms.

The new Letters course now offers an attraction to students who might wish to take music and painting in connection with such a course. A certain number of hours devoted to painting may be credited in this course if the student desires.

Decorative Painting.—This department of the school of Painting was opened three years ago, and is meeting a want which has for some time been felt in the institution. The interest is growing and much pains is taken to provide that which is beautiful and complete in this art. The work is all completed here—setting the colors by heat, etc.

The charges for instruction in the School of Painting—which are moderate—will be found on another page.

FIRST YEAR.

FIRST TERM.—Freehand outline from cards, chart and blackboard lessons.....1–5
Dictation lessons of right line figures and simple curves. Linear drawing, with definitions in plain Geometry.....2–5
Oil Painting in monochrome from simple designs.....2–5
SECOND TERM.—Drawing from more advanced copies, flat examples. Memory and dictation lessons.....1–5
Object lessons illustrated by drawings, etc.....1–5
Shading from flat and simple objects in Charcoal.....1–5
Painting in Oil from simple designs.....2–5
THIRD TERM.—Freehand outlines of ornaments and objects.....1–5
Drawing and shading from objects or casts.....1–5
Freehand drawing, and map drawing with memory and dictation lessons; in class three hours weekly.
Painting in oil from flat examples. 3–5

SECOND YEAR.

FIRST TERM.—Design in Geometric forms.....1–10
Dictation lessons in Crayon drawing, viz: at least two examples finished to absolute shading...1–10
Painting from examples dictated, viz: from flat examples or objects..... 4–5
SECOND TERM.—Model and object drawing..... 1–5
Linear Perspective, shades and shadows, by instruments, in class, three hours weekly.
Harmony and mixture of colors (with text, Dresser and Von Bezold)..... 1–5
Design from natural foliage, and painting in Oil from natural objects and still life..... 2–5
Pen drawing for Photo-engraving 1–5
THIRD TERM.—Shading in chalk and color and India Ink..... 1–5
Painting in Sepia, Neutral tint, and Water Color..... 2–5
Prescribed reading on Painting, Sculpture and Architecture... 1–5
Portrait in Crayon..... 1–5

THIRD YEAR.

FIRST TERM.—Complete Mechanical drawing by instruments. In class. Four hours weekly.
Historical lessons in Ornamental design, (text, Dresser)..... 1–5
Painting in Oil. Broadhand painting from natural objects. 4–5
SECOND TERM.—Art History and Biography 1–10
Painting from Nature.....9–10
THIRD TERM.—Drawing and Shading from Human Form.. 1–5
Prescribed reading on Art..... 1–5
Portrait in oil..... 3–5

FOURTH YEAR.

FIRST TERM.—The Renaissance in Painting in Italy, and the early methods and masters.... 1–5
Painting from Life and Nature.. 4–5
SECOND TERM.—Modern European Art.....1–10
Selection, Composition and Design. Animal and Landscape painting.....9–10
THIRD TERM.—Contemporary Art. American Art and Artists.....1–10
Painting from Nature, Animal, Landscape and figure.....9–10

Full work demands the attendance of the student three hours a day in the studio. The numeral 1 in the course of study stands for the complete work of a term, hence 1-5 stands for one-fifth of a term's work, etc.

Degree.—The degree of Bachelor of Painting, (B. P.,) will be given on the satisfactory completion of two years more of work than the above,—gaining special skill in portrait and landscape Painting in addition to such knowledge of Belles Letters, including the French, German and Italian languages, as are provided for in the Letters Course,—that is, three years of language, in all.

ASSOCIATION OF DEPARTMENTS.

In the administration of the affairs of Albion College, it has been the supreme purpose of those in charge to make the work exceedingly thorough, and to supply the students with the most favorable conditions for securing the largest results of study. Originally the work done was wholly literary. It is intended in the Preparatory school to afford the best advantages to ambitious young men and women fitting themselves for college. The Preparatory school of this institution offers the student helps which no separate school could possibly afford. These students having access to a library and other appliances much more valuable than any purely preparatory school can supply; also being thrown into the preeminently scholastic atmosphere of the College of Liberal Arts; and still farther enjoying largely the instruction of college Professors, are permitted to carry forward their studies under the most favorable circumstances.

The work of a Conservatory of Music that is not prosecuted in connection with a literary institution is necessarily exceedingly limited. In this thinking age but few young people are satisfied with a musical education that does not reach out into the fields of general scholarship. The conviction is largely cherished that during the period of musical

training it is very desirable to gain a cultivation of the mind that can be obtained only by pursuing such branches as make up a course of literary studies. Thus we get in the best sense educated musicians, who in connection with proficiency in one of the fine arts are equipped for all the intellectual demands of the day. These statements apply with equal force in the School of Painting. Aside from more general branches of study, such as literature, language, etc., for the fullest skill in painting the artist needs a knowledge of Physiology, Natural History, Botany, Perspective, etc.

The Commercial Department was created not only to meet a demand for professional business training which is given as preparatory to graduation from this department, but also to put within the reach of all students in the institution an opportunity to obtain so much knowledge of commercial principles and business forms as are needed in the various industries of life. With the culture of the intellect that is fully subjective there should be joined that which has an objective side, so that the scholarship required shall put the student in touch with practical life.

Oratory studied alone most commonly fosters mannerisms that are offensive to scholars, but when made one side of a rational system of education it serves a very valuable end. Thought and the ability to express thought should go together. Indeed thought has greater content as we are able justly and fully to give expression to it. The right rendering of any mental conception both defines and puts meaning into it.

Thus in full-orbed scholarship all sides of our mental being must be trained. Underneath specialization there must be a broad basis of training. This cannot easily be laid when schools are detached, and limited opportunities restrict the action of our powers. Hence it is apparent that the college helps and strengthens the Conservatory of Music, while many students in the college find it convenient to gratify their taste

or desire for music. Persons devoted to natural science gain in the School of Drawing and Painting the ability to express and fix on paper the special forms they wish to preserve. In short a unity of schools not only makes an institution larger, but makes each school more efficient in doing its special work.

ASTRONOMICAL OBSERVATORY.

The Observatory stands on the campus, on high ground, affording an uninterrupted view in all directions. The building, reared in 1883, is of brick, two stories high, with a round tower which rises to three stories, and is surmounted by a dome.

On the lower floor are the lecture room of the department of Astronomy and Applied Mathematics, and the pier-rooms through which pass the brick supports for the fixed instruments. These are also utilized for containing the apparatus employed in the study of Physics. On the second floor are the Transit room, containing the Transit Circle, Clock and Chronograph, a computing room, a room for portable instruments, used also as a workshop, and a room containing the Astronomical and Meteorological Library. Here are also kept the meteorological instruments, observations of which are taken three times a day and forwarded to the offices of the State Board of Health and the United States Signal Service. In the round tower is placed the Equatorial.

The instruments are of the best class, the chief among them being as follows:

1. A Transit Circle, by Fauth & Co., of four inches aperture, reading by two micrometer microscopes to single seconds. It is provided with micrometer in right ascension and declination.

2. A Siderial Clock by Fauth & Co.

3. A Chronograph of latest style, by Fauth & Co., with Saegmueller's maintaining power.

4. The Equatorial, constructed and mounted by Alvan

Clark & Sons, of eight inches clear aperture, and provided with circles, driving clock, filar micrometer and a full outfit of eyepieces, both Huyghenian and Ramsden.

The above instruments are all in electrial connection that all observations may be recorded by the Chronograph.

The Meteorological Instruments include a Standard Barometer, Maximum and Minimum Thermometers and Psychrometer by J. & H. J. Green, Rain and Snow Gauges, etc.

Excellent instruments are also provided for practical work in field surveying.

The Astronomical and Meteorological Library contains over 350 bound volumes and pamphlets, always accessible to advanced students, for reference and research. Works of an elementary and more popular character are left in the general library.

Though the instruments are of the best, it is a maxim here that none of them are too good for use, and students are encouraged to employ them in their studies to as great an extent as they may be able. The advanced class in Astronomy is required to become familiar with the astronomical instruments and their adjustments to such an extent that they make reliable observations and reduce them accurately. So far as possible, all work is based upon observations taken by the students who perform the reduction.

It is a noteworthy fact that the vast bulk of astronomical knowledge has been gained by the use of instruments far inferior in size to those upon these grounds. The Transit Circle, with a good brain behind it, is adequate for nearly every class of observations to which such instruments are applied, and the Equatorial, which is supplied with an objective of unusual perfection of figure, is of the same size as those by which Dr. Huggins made his remarkable studies in stella spectra and in star motion in the line of sight; by which Neison and Beer and Madler made their renowned studies upon the moon, whose surface is now far better known than that of our earth

by which Schiaparelli made his wonderful discoveries of the duplicate canals (?) upon our companion planets, Mars, etc., etc. It is true that this is an age of great telescopes, but the mechanical and optical difficulties in the way of their use render it certain that the really useful instruments of the future, as of to-day, will be found among those of smaller aperture and consequent facility of management.

LABORATORIES.

It has been the consistent policy of Albion College not to undertake to teach any line of natural science which it could not teach by the latest and most improved methods. Modern methods require that the student and not the teacher alone shall perform experiments, and thus practically test the truth of the various theories and principles which are investigated.

Accordingly when it has been proposed to make an extension in the course of study, the first concern has been as to proper laboratory facilities.

In chemistry, biology, physics, and astronomy, apparatus sufficient for the participation by the student in practical laboratory work has been provided.

The chemical and biological laboratories occupy the second and third stories of the central building. A large lecture room is devoted to recitations or lectures, and the working laboratories are near at hand.

CHEMICAL LABORATORY.

The Chemical Laboratory proper contains *tables for twenty-five students* which are mainly devoted to *qualitative chemistry.* For this work they are furnished with all necessary reagents, apparatus, water supply, etc. Early in his course the student is assigned one of these tables which becomes his per-

sonal property to be used during the regular working hours and at other times at will. Apparatus or chemicals needed in his work are furnished from the general stock to be used by him without charge, provided they are returned in good order, the student paying only for so much as is used up by him. Special sets of apparatus are furnished for water-analysis, urine analysis, food adulterations, bacteriology, etc.

In addition to the foregoing there are *in lecture room ten tables* devoted to *quantitative analysis.* Here are furnished balances, combustion furnaces, thermometers, burettes, dessicators, rapid filtering apparatus and other appliances needed in the work. Considerable work of a practical nature is here done for outside parties, analyses of coal, gold bearing earth, oils, water, baking powder, etc.

BIOLOGICAL LABORATORY.

This is situated on the second floor of the Central Building. It is furnished with twenty-five tables for student's use, at which dissections are made and all other biological work done. Sixteen compound microscopes are in almost constant use. Several hundred mounted specimens in all departments of biological research are provided, and the cabinet is rapidly growing. The laboratory is well provided with accessories, among which are imbedding, sliding and rocking microtomes, and a full outfit for bacteriological investigations. Mounting materials, stains and reagents of all kinds are furnished to the student at cost prices, and the preparation and mounting of his own specimens for study is an invariable regulation. As an outcome of his own work each student becomes provided with a valuable cabinet of specimens, material and formulæ that will enable him to prosecute original work along many lines.

PHYSICAL LABORATORY.

This laboratory is at present in connection with the Observatory. It is provided with a fair equipment of apparatus

for purposes of illustration and experiment. The workshop has receently been provided with a first class engine lathe and tools for working in metal and wood, which will greatly increase its efficiency.

MUSEUM.

The modern museum is not a mere collection of rare curiosities, but is rather considered as a valuable adjunct to the work of instruction. This service the museum of Albion College performs. Its specimens are daily brought to the laboratory and class-room for dissection and observation, the students thereby being able to study the fauna and flora of the distant portions of the earth.

Besides the mounted specimens displayed in the cases, the college keeps constantly on hand many hundreds of specimens of type forms preserved in alcohol, in order that when a given subject is reached every member of the class may be supplied with a study specimen. In this way the work of acquiring knowledge of a subject, such as Botany, Zoology or Mineralogy, does not consist in the mere acceptance on faith of the statements of the author, but it is the privilege of the student to challenge those statements by a practical appeal to the natural object.

Again, the Museum is for the purpose of entertaining and educating the general public. Many hundreds of people in the course of the year visit these rooms and go away with much information which could be procured in no other way.

As heretofore we are under obligations to our friends for the interest they are taking in the building up of this part of the appliances of the college. We make special mention of the following:

A fine collection of Cenozoic and Recent shells from deposits in Maryland and Virginia has been received from Mr.

Arthur E. Bibbins, of Baltimore, Md., an alumnus of the institution.

From Mr. Buck, of Stevensville, Montana, we have received the skins of a very large bull moose and three elks, which are now being mounted.

The collection of old and rare coins has been considerably enlarged during the year, now nearly filling four cases.

The museum occupies the north half of the second and third stories of the central college building, the same being a room 40x50 feet, with a wide gallery extending entirely around the same. In the gallery are located the collections in Natural History and Conchology, being placed in twelve large double cases. The main floor is devoted to minerals, fossils, corals, Indian relics, war relics, and articles representing the arts and customs of foreign lands, and rare coins. These fill sixteen large cases, the most of them double, showing the specimens from both sides. The collection of minerals from Michigan is very complete, so far as thus far identified by scientists. Most of the states, as well as many foreign countries, are here represented. The collection of curios from Asia, Mexico, etc., is unusually rich in variety and extent. It represents the arts, customs and religions of those lands. The Botanical Collection is placed in the Botanical Room so as to be convenient for use in instruction.

The museum is beautifully lighted.

The College is anxious to make collections in every direction, but we call special attention to two classes of objects in which many of our friends could easily furnish us specimens, namely, Indian and war relics. Cases have been provided specially for such objects.

MAPS AND CHARTS.

Of apparatus for illustrating the work in Language, Literature and History, we have probably as large a collection as any school in the United States. ***Both the Latin and Greek***

departments are provided with full sets of classical maps. The Greek department has abundant materials for the illustration of Greek Archæology, and a rarely complete set of charts for exhibiting in detail the topography of Ancient Athens. The head of this department is working out on an original plan a series of language charts which, when completed, will present to the eye a full outline of the leading facts of Greek Grammar.

The History department, where the "Layer Map" plan, (elsewhere described) has been introduced, has at its command about 180 maps, representing successive stages in territorial history. If every change which can be represented singly be counted, the total number of possible maps would aggregate about 800. In addition to the series formerly prepared, showing the development and break-up of the Roman Empire, the formation of the new nations up to 1843, A. D., the break-up of the Ottoman Empire, from 1699 to 1885, the development of Prussia to 1866, the growth and dissolution of the Napoleonic Empire, and the unification of Italy; we have recently prepared a set of "layer maps" for the United States, showing every territorial change in its history from 1763 to 1876—changes, the number of which falls but little short of 100. As new maps are being constantly added, we hope to be able in a few years to exhibit every important territorial transfer appearing in the course of history.

The advantages of the device we employ are apparent. It is superior to the series of maps, because (1) it changes with history; (2) a more definite concept of the changed territory is obtained when it can be taken off and handled as a piece of cloth; (3) the student can be set to work out the changes for himself—to build up or take to pieces the map; and (4) it is less expensive, involving but one or two full-sized maps. It is superior to the black-board scheme, because (1) it is clearer; (2) it is more accurate; (3) it is easier to reproduce, and so not too difficult for the student and the overworked

teacher; and (4) it preserves both the original condition of things and the changed order, each of which can be reproduced in turn, and thus the exact nature and extent of the change can be clearly and definitely seen.

Incidentally the use of soft-wood back has suggested several little devices which we find quite helpful. For battles we use a bright red spear-head of stiff cloth fastened with sealing wax to the head of a needle. These, being removable, are placed on the map just where events call for them; can be made large enough to show across any room without permanently disfiguring the map; do not crowd regions like the Netherlands, where many battles have been fought, till the confusion is hopeless; and finally, furnish, in putting them on, a useful exercise for the student. Similarly, we use a yellow star on a black circle for treaties of peace, and lines of colored braid to follow expeditions, such as Alexander's, or the crusades. Doubtless other expedients of the same nature will suggest themselves.

LIBRARY.

The number of books added to the Library during the past year, *aside from unbound volumes*, is 518, making the whole number now in the Library 8,568. Besides these there are something over 2,100 unbound volumes and pamphlets.

The nucleus of a ***Bibliographical Museum*** has been formed by placing in the Library a glass case for books especially notable on account of age, rareness, ownership, etc.

In the management of the Library great pains is taken to induce the students to use it as much as possible, since we hold that to train them in the use of books, the store-house from which all alike must draw, is one of the most important functions of the College. With this object in view ample indexes are provided; books much in demand are placed

within the reach of all; and new books are placed in a revolving case in the reading room where their accessibility will tempt every one at least to look them over. The utilizing of new books is further secured by placing them in the hands of the teachers most interested, who frequently assign them to students to review before their classes, thus giving all an opportunity to learn the bibliography of the subject, and filling all with new zest for work in the several departments.

To facilitate such a use of the library, ***card indexes*** are prepared and placed in easy access to all students. First, ***a card index of authors,*** alphabetically arranged. In this the author's name is the leading word upon the card, and below it, or on successive cards, are placed the titles of all books in the library of which he is the author. The number of the book is placed upon the card opposite the title. The student, knowing the author's name, is thus guided to the desired book.

Another drawer contains ***a title index,*** or catalogue, of all the books in the library, on cards alphabetically arranged. In this the title of the book is the leading word upon the card, the author's name following. The advantage of cards, instead of a printed catalogue, is that it admits of continued accessions without destroying the alphabetical arrangement.

Then there is the ***subject index,*** in which the subject is the leading word upon the card, and all books treating upon that subject, even those in which it is only incidentally mentioned, are there referred to by name, number, and if it is only a sketch, or article in a book of which that subject is not the title, the page also. A student, desiring to investigate any subject, is thus guided to all there is in books and pamphlets upon that subject in the library.

Another drawer contains the ***biographical index,*** where the student is guided to the biography and biographical sketches of anyone of whom he wishes to learn.

Still another drawer contains an index of current events,

where the important events of the day, as they transpire, are recorded on cards. If the student wishes to know when Mr. Emerson died, or when President Garfield was shot, or when any other important event occurred, he goes to this index.

Besides these the library is supplied with ***Poole's index*** of periodicals, in which all the leading periodicals of the day are indexed, up to 1832, supplemented by the Co-operative Index of Periodicals, published quarterly. By these, students are guided to what they desire to find in the bound volumes of periodicals. Thus there are marked out paths to guide both the faculty and the students to such information as they wish to obtain in the library.

It is customary for members of the faculty to ***assign to the students certain topics for research,*** or subjects to obtain information upon, and thus their acquaintance with books is greatly extended, and they are disciplined in the practice of research. Tables are placed in different parts of the library where such students are permitted to sit and prosecute their investigations. The library is open during all school hours, and on Saturdays, and is free to all students.

The Pastor's Library, based on the Peter M. Emery foundation, is constantly growing from purchases of books specially adapted to the purpose of this collection. It is intended to supply the best publications in all the directions that ministers look to secure preparation for the work of their profession.

Reading Room.—The reading room is provided with a two-fold end in view: to furnish wide range of general newspaper and magazine reading, and to supply advantages for special educational work. It contains the leading religious and secular papers of the country, with some from foreign lands, including French, German, Latin and Greek It is supplied with the principal magazines of this and other countries. During the last year many new valuable publications have been placed on our list, so that the range of this class of educational appliances has been largely extended.

Thus far there has been no special fund for the purchase of books. The Ladies' Library Association, since its organization, has paid over to the institution $2,500 to be expended in the Library. From other sources, in the last twelve years, about $8,000 has been secured and appropriated to the enlargement of these facilities, so that about 7,000 volumes have been added to the Library during this period. In the purchase of a general library full twice the number of books would be procured, but the selections have almost uniformly been made with the view of aiding the several departments of the institution, and hence being so largely special or technical they have been expensive. The purpose is to provide extended appliances for advanced work in the college. The Library room is the busiest room in any of the college buildings, and it all bears systematically on the progress of the institution.

A gentleman has subscribed $50,000 for a Library building, which will soon be erected. Twenty thousand dollars is provided towards the endowment of the Library, which is to be made $30,000, and we hope it may in a short time reach a much larger sum.

APPLIANCES IN SCHOOL OF ART.

Conservatory of Music.—The Conservatory of Music is supplied with all the instruments required for successful work. There are in the institution ***eleven pianos,*** eight of which are used for instruction purposes. One of these is kept in the chapel for use in concerts and on other occasions in which a piano is needed. This is an instrument of more than ordinary power. Each of the three literary societies has a valuable piano, which helps to make music an interesting part of the weekly exercises. Students in the Conservatory are able, to some extent, to practice on college instruments. Aside

from these the institution is able to supply students to an almost unlimited extent with the use of pianos at private residences in immediate proximity to the college buildings.

The institution possesses ***two organs,*** one of these with all the appointments of a two-manual pipe organ.

The college derives much benefit from the large pipe organ placed in the new Methodist church.

The department possess a Technicon for use of Piano students in disciplining the muscles of the hand.

The Orchestra, composed of about ***fifty players,*** is supplied with all the variety of instruments employed for the production of orchestral music.

The Conservatory has a ***valuable musical library,*** which is being enlarged as desirable publications make their appearance. It is also in receipt of the best musical papers and journals.

School of Painting.—This school occupies a suite of rooms in the North College building, both as working rooms and for art gallery. The gallery contains a large number of studies covering a great variety of subjects. There are also many very ***fine imported studies***—copies from celebrated painters—which represent the various schools of art. These afford the student a fine opportunity to study and compare the various methods of conducting art work. The department keeps on hand a large supply of easels of uniform pattern, with material, stands, etc., for the use of students. A ***complete set of models*** for drawing, consisting of cubes, cones, etc., are provided for use; also models for different parts of the human figure. The art room is supplied with a somewhat extensive ***collection of heads and busts*** of distinguished men of the past.

Complete provision has been recently made for study of ***Decorative Art.***

GENERAL STATEMENTS.

Closing Examinations.

1. All students must be present at examinations and the closing recitations of the term, or no credit will be given for the work pursued.

2. Students absenting themselves from the closing or examination work will not, unless such absence was ***caused by sickness or other unavoidable conditions,*** be allowed to take the omitted examinations until they occur in regular order with the next class.

3. All conditions must be removed within a year from the date of the examination, or else the student will be marked Not Passed, thus requiring that the work be taken over again in class.

4. Work marked ***incomplete*** must be completed within a year, if credit is to be allowed.

5. No credit will be granted students for work on which they are marked Not Passed, until they have satisfactorily pursued the same again in some regular class.

Attendance.

1. Persons coming to Albion for the purpose of entering any department of the College are subject to its government ***from the time of their arrival;*** and whenever a student has entered College he is under its jurisdiction until his connection is formally closed by graduation or otherwise.

2. Students who are ***not in their places*** at the opening of the term, if minors, must present written excuses from their parents or guardians for their delay; and if not minors must give a satisfactory excuse for such delay.

3. ***Uninterrupted attendance*** upon college duties during term time is required. Under ordinary circumstances visiting home or friends is discouraged.

4. No student is permitted to leave town without the President's permission.

5. ***All delinquencies,*** such as tardiness, deficiency, offenses against good order in the recitation rooms, are dealt with by the Professors of the Departments. Flagrant cases are reported to the President or Faculty.

6. ***Students*** who at the close of a term do not expect or desire to remain the following term *must apply for leave of absence or honorable dismission* from the Institution. Unless dismissed or excused they are ***subject to the regulations and government of the College.*** *Unexcused absence works forfeiture of privileges* heretofore gained by enrollment or matriculation.

RULES AND REGULATIONS.

We do not print a code of rules in the Year Book. This Publication is for the purpose of information on the educational aims, appliances and methods of the Institution. Indeed the great body of college laws must be unwritten. They need not and cannot be put on the printed page. As to the prohibition of the different forms of vice, there need be no formal statement, as no reputable college would allow known immorality.

The institution expects manliness on the part of the young men, and refined lady-like deportment on the part of the young women. While the special aim of each student is the acquisition of scholarship and the fullest culture of the mental powers, that education is incomplete in which character receives less attention than the intellectual faculties. But with high moral aims there should be that which is becoming and refined in social life. The relations of the young men and young women are expected to be elevating, and no condition affords better opportunity for the exercise of social amenities than the daily commingling of young people in the midst of an atmosphere of learning and progressive scholarship. Students upon entering the institution soon come to

understand what is the real standard of moral and social life, and the principles to be observed and cherished in order to secure the largest measure of good. Irregularities which betoken a coarse nature work a forfeiture of college privileges. The faculty may terminate the connection of any student with the Institution whenever it is apparent that his presence is prejudicial to good order and the pursuit of scholarship. Indeed noble character—including the mental and moral—should be the chief aim of college life. There are certain prudential requirements relating to rooming, boarding, hours of study, etc., which all students come readily to understand.

SPECIAL PRIVILEGES.

Religious.—On each school day at 9 a. m. religious services are held in the College Chapel, which all the students are required to attend.

On Sunday morning they are ***required to attend public worship at such church as they or their parents or guardians may select,*** and each student is expected to be ***uniform in his attendance*** at the church of his choice.

Attendance upon the following is optional. On Thursday evening is held the general weekly prayer-meeting, which, though a voluntary service, is attended by a majority of students. On Tuesday evening there is a church class, composed of students, and at present is lead by Prof. S. D. Barr. At 9 a. m. on Sabbath there are meetings for the study of the Bible. In the afternoon there are students' gospel meetings.

Albion College is not a theological school; it is not its office to impart instruction distinctively on theological and ecclesiastical subjects. But believing in morality we must believe in religion. No institution of learning will have a healthy moral atmosphere which is not pervaded by a christian spirit. To guard young men from the vices so common in every community, there must be a distinct religious sentiment and

a positive spiritual atmosphere from which immorality is shut out, and which serves as an inspiration to pure thoughts and a correct life. But while Albion College does not teach theology, it does teach God as the Creator of all things, as a personal providence to every human being, as the author of the Bible, and who in Christ, the Redeemer of the world, is ready to save every one who in penitence and faith will come unto him for everlasting life. While the school is not sectarian, and does not interfere with the denominational preferences of any student, and while it does not aim to make educated ministers any more than educated lawyers or physicians or business men, it does hold that God has rights in every lecture-room, that he must not be shut out from any department of instruction, and that truth can have no foundation only as it rests finally on the being and creative power of God. The authorities of the college hold that character is more than scholarship, and to be perfect the character must be christian. The aim is to supply the world with educated christian men and women for all the professions, for all departments of legitimate business, and for all proper relations in life.

Societies.—There are three Literary Societies connected with the Institution. The *Erosophian Society, the Eclectic and Atheniades Society;* and the *Philozetian Society.* The two former are college societies, the latter is connected with the preparatory school. Students in preparatory classes may join the *Philozetian Society*, and remain in the same until they reach the Freshman Year. They are not at liberty to become members of either of the regular college societies before they complete the studies of the first three preparatory years.

The *Missionary Society* is organized for the promotion of the missionary spirit.

There are *two Christian Associations*—The Y. M. C. A. and the Y. W. C. A.

There is a flourishing Epworth League composed principally of students which holds a weekly meeting.

The Christian Associations hold regular meetings for the study of the Bible. Students' Bible Classes are organized at the church, and are largely attended.

The *Ladies' Library Association* carries forward its work by the employment of eminent lecturers, the profits accruing being devoted to the purchase of books for the library. In connection with a very superior course of lectures the past year, it cleared $450.

A college paper called the *Pleiad* is published weekly by a society or stock company organized for that purpose.

The Literary Societies have fitted up *elegant apartments* in which to hold their weekly meetings.

No literary or other society can exist in connection with the Institution unless by permission granted after the Constitution and By-Laws of the same shall have been submitted to the Faculty for examination, and shall have received their approval. Whenever the workings of any society shall be deemed prejudicial to the interests of the Institution, such society will be dissolved.

The ***times and places*** of the meetings of the societies will be subject to regulation by the Faculty; and all meetings, whether of regular societies, or of any other body of students, shall be open for the attendance of any member of the Faculty or of the Board of Trustees.

No society in the College may ***invite any lecturer to address them*** in public until the name of the proposed lecturer shall have been laid before the President, and he shall have given permission to extend the invitation.

EXPENSES IN THE VARIOUS DEPARTMENTS OF THE INSTITUTION.

Rates of Board.—The institution does not ***conduct a boarding hall,*** but the students are able to make arrangements for board at figures as moderate as college boarding halls ever charge, and, as a rule, obtain ***board of a better quality*** than is ordinarily procured on the old plan. ***Table board*** in private families usually costs from $2.25 to $2.50 a week. A large number of students organize ***boarding clubs,*** enabling them to reduce the rate to $2 or $1.75 a week. This is now quite a popular method of providing for board. There are other students who ***board themselves,*** expending perhaps one-half the cost of club board, and some even less. Furnished rooms can be rented usually at ***fifty*** or ***seventy-five cents a week*** for each student.

The following is a schedule of charges made by the Institution. It will be seen that for ***literary work*** there is ***no tuition.***

PREPARATORY SCHOOL AND ACADEMIC DEPARTMENT.

Tuition	Free
Incidental fee, if ticket is taken out on Enrollment Day	$5 00
If taken out subsequent to Enrollment Day	5 50

COLLEGE.

Matriculation fee, paid but once	$5 00
Tuition	Free
Incidental fee, per term, if ticket is taken out on Enrollment Day	5 00
If taken out subsequent to Enrollment Day	5 50
Diploma fee	5 00

Commencement expenses for each candidate for graduation	5 00
Students in chemistry deposit at the opening of the term, to cover cost of the material used	4 00
If balance to their credit at the end of the term, it is refunded. Students using the microscope pay a small rent.	

CONSERVATORY OF MUSIC.

Matriculation	Free
Instruction in Chorus Class, per term	Free
Instruction in rudiments of vocal music, per term	$ 1 00
Incidental fee, per term	2 50
Tuition, in class of three—piano or organ, per term	12 00
Tuition, in class of two—on piano or organ, per term	15 00
Tuition, private lessons, twice a week, also theory—on piano or organ	20 00
Tuition, in Harmony—once a week	4 00
Voice culture—class of two, per term, three-fourth hour	5 00
Voice culture—private lessons, per term, three-fourth hour	8 00
Voice culture—private lessons, half an hour	6 00
Instruction on violin, cello, etc.—hour, per term	9 00
Instruction on violin, cello, etc.—half an hour, per term	5 00
Instruction on cornet, clarinet, flute, guitar, etc., hour	6 00
Membership in the Orchestra	Free
Membership in the Band	Free
Use of piano or organ—per hour, for term	2 00
Graduating Diploma	3 00
Commencement expenses to each candidate for graduation	3 00
When literary studies are taken in connection with music, an additional Incidental fee is charged of	2 50

It will be seen that ***class rates are much cheaper than private lessons,*** and until the student reaches the graduation year the instruction thus received is as profitable as by private lessons.

To students receiving instruction on the piano or organ in elementary work, there is a reduction of 25 per cent of the above rates.

SCHOOL OF PAINTING.

Incidental fee, per term	$ 2 50
Tuition in oil painting, water color, India ink, etc., per term	20 00
Single lessons	50
China painting or other purely decorative work—single lessons	60
When literary studies are taken in connection with painting an additional Incidental fee is charged of	2 50
Graduating Diploma	3 00
Commencement expenses to each candidate for graduation	3 00

☞ ***In no case*** does the incidental fee exceed $5.00 per term, though the student may be pursuing ***studies in several departments*** at the same time.

It will also be seen that ***no tuition*** is charged for instruction in literary studies, tuition being required only for instruction in music, painting, commercial studies or elocution.

It will also be perceived that the charges for instruction in music depend on the class to which the student belongs, and the amount of instruction received. The schedule of prices ranges all the way from $4 to $20 or $30 a term. It is at the ***option of the student.***

COMMERCIAL DEPARTMENT, SHORTHAND, ETC.

Tuition, full course, including all studies, except Typewriting and Shorthand:

First term, in advance	$20 00
Second term, in advance	17 50
Third term, in advance	12 50

Besides the regular course there will be classes to accommodate those from other departments who wish to take special work in this department, as follows:

Book-keeping, per term, five hours a week	$ 5 00
Book-keeping, per term, three hours a week	4 00
Penmanship, per term, five hours a week	3 00
Penmanship, per term, three hours a week	2 50
Commercial Arithmetic, five hours a week	3 00
Commercial Law, three hours a week	3 00
Shorthand and Typewriting, per term	15 00
Typewriting alone, per term	5 00
Shorthand and Typewriting, supplemental to full course, for those who desire to do this work, per term	10 00

ELOCUTION.

Tuition, class and private.

Class—Per term	$ 4 00
Private—Per term, ten weeks' course	12 00
Incidentals	Free

Arrangements for taking more lessons at the same rates can be made at the beginning of each term.

COLLEGE SUPERVISION.

Before closing up Part II it will not seem out of place to introduce some thoughts on college supervision. The government exercised over the student in college has greatly changed during this century. Police espionage has been largely displaced by an appeal to the sense of honor, not dispensing with the law but trusting to keep the law, a government not through petty ordinances, but by awakening a regard for and a love of right and a sense of duty. The teacher and student of to-day are much nearer together than fifty years ago, they have come to be companions. The teacher is a friend and a guide, not an overseer. We transfer to these pages a portion of an article written by President Charles F. Thwing, of Adelbert College, not as a final word on this subject, or fully expressing our thoughts, but as leading us up to a subject that should further engage our attention.

"Every one, both officer and student, would affirm that some supervision of men in American colleges is necessary. Evidently to secure intellectual supervision is one of the fundamental and simple purposes of being in college. I think, also, there would be a general assent to the further proposition that supervision of conduct in at least a degree is wise. Young men between the ages of eighteen and twenty-two have not come to such power of judgment or self-mastery that it is expedient to fling them into the manifold and trying conditions of the college without some eye to see them or

some hand to point out the worthiest paths. The law itself contemplates that the age of freedom shall not be earlier than the twenty-first birthday. In the absence of parental influence the college is to serve as guide, philosopher and friend.

"The American college is beset by two movements—one a tendency to the making of the relation of the student to the authorities simply intellectual. In point of place this movement represents a relation between the officer and the student limited to the lecture room; in point of time this relation represents a relation of officer and student limited to the lecture hour. The student may be an imp of darkness in character or behavior, but if at the time of a lecture or examination he be an angel to receive and emit light of a proper quantity or quality the demands of the officer are satisfied. Intellectual culture is, it is thus assumed, the aim of the university, to give it on the one side, on the other side to receive it. The university, therefore, is doing its full duty in securing this aim. This purpose has its fullest embodiment in the universities of that nation of strange contradictions, Germany.

"The second of the two movements affecting our colleges is the other extreme of this intellectual tendency. This movement assumes that college men, are in the light of the law and also in the light of fact, infants; that the college is a nursery; and that the supervision of those of tender years and inexperience is to be minute and constant. This movement shows its method and character by demanding that the lights in the rooms of students shall be put out at or before ten o'clock of each evening and shall not be relighted before half past five the next morning. It surrounds the daily conduct and belongings of the student with certain limitations; it forbids his going to the railroad station; it looks upon his departure from town as a moral transgression.

"These two extreme and antagonistic movements are acting with various degrees of force in all our colleges. It requires no profundity or length of statement to show how un-

worthy each of these movements is. The German university is a model for the American college in certain matters. It is a model in thoroughness of instruction, in completeness of equipment of a certain sort, and in the enthusiasm of the teaching force; but in other respects it is not a model. Chiefly it is not a model in respect to the freedom from personal supervision. The German student is more mature than his American brother; his work at the university is more akin to the work of the American professional student than it is to the work of the American college student. It is not necessary to assume that immorality is the inevitable result of the lack of supervision; but it may be said that a college, even if having regard to only intellectual aims and methods, must, in securing this aim, be concerned with moral conduct and behavior. For we are learning that such is the integrity, such a unity is each man, that the abuse of any one of his parts leads to evil results in every other part. If the body is unduly stimulated or weakened, undue excitement or lassitude affects the mind. If the moral nature is injured, either through the cherishing of base ideals or the following of base methods or the adopting of base practices, the intellect suffers. Drunkenness is a crime against the laws of the intellect as well as a sin against ethical principles. Licentiousness is a sword which palsies the intellect as well as cuts the nerves of self-control. Therefore the American college, seeking intellectual results, seeking intellectual results only, must conserve moral standards.

"As to the second movement, concerned with the careful supervision of students, it is to be said that the American college is to free itself from giving a minute and constant watchfulness to its men. For the American college is not a nursery; its students are not infants. Rules minute and inquisitive defeat themselves. They cannot be enforced. And even if they could be enforced, the enforcement would tend to do away with the fundamental purpose of a college, viz.,

to fit the student to be his own worthy master. For the purpose of the college is to guide the student in the little world of the college itself in such enlarging self-control that the translation from the college to the larger world will be attended with as small peril as possible.

"Every college has its 'Rules and Regulations.' The laws differ in different institutions. Of the excellence or defects of such statements it is not necessary to speak in detail; but it may be said in general that all penalties for the violation of these rules should be based on the simple principle of naturalness. All laws should be made, so far as possible, self-acting, self-enforcing. The fracture of any rule should carry with it its own punishment. If a student break the law requiring attendance at recitation, the penalty should be simply the prohibition of his attendance. If the student violate the rule of absence from town without permission, the punishment should be the prohibition of his remaining in the college town. If the student is falling below the required standard in recitations, he should have no opportunity to recite. Such penalties of the natural, self-enforcing sort do we exact in social relations. If a man fails to behave as a gentleman, he soon has no opportunity so to behave; he is ostracized from the society of gentlemen. The college is a proper field for the application of a similar principle.

"But in the supervision of college men the principle and the method of supervision are far more important than the rules and regulations, however wisely framed. The relation between officer and student should be made as personal and intimate as it can be made. It would be well to forget that the one is a college superior and the other a college inferior. It would also be well for the student to be impressed with the truth—and it is a truth—that when he is discouraged he has no better friend than his professor, and that no one is better fitted to advise when he wishes counsel or to cheer when he is discouraged, as every student is prone to be.

The student, I know, is inclined to think that the teacher is busy, and every teacher is busy; but he should learn that no teacher is so busy but that he is happy to lay aside all tasks, however pressing to have a talk with the student. The student is inclined to think that the professor does not care for him, and probably 'looks down' upon him. Ah! he will, when he himself becomes a teacher, learn that there is no one whom the teacher so cares for as he cares for the student, and that his wellfare is the constant object of his teacher's interest and solicitude. He is anxious not only to keep the student out of the bad, but also to aid him in securing the largest, noblest and finest good.

"Tholuck did a great work for the world by his walks and talks with his students. American professors may do a great deal for the world by putting themselves on terms of intimacy with their students; by sitting with them before blazing hearthstones till the hearthstones cease to blaze and the coals become dead ashes.

"Some colleges appoint of their professors those who are called 'advisers,' to be the special counselors of the students. The method is simple; each student is assigned to some one teacher upon whom he has special rights to make claims for counsel. The method is a good one; but that method is a better one in which by certain processes of natural selection —not by arbitrary enactment—each student seeks out some professor and each professor seeks out students, and each becomes to the other a friend. It is not on the part of the student a toadying; or on the part of the professor an undignified proceeding; it is on the part of each an act of noble gentlemanliness of giving and receiving help. Happy day that when in all our colleges such a relation of genuine helpfulness becomes the easily sitting custom. Happy day that when all teachers, not forgetting that they are to teach the humanities, also remember with love the humanity of college men."

PART III.

CATALOGUE OF STUDENTS.

CANDIDATES FOR GRADUATION.

DEGREE OF A. M.

Graham, Hugh A.

DEGREE OF A. B.

Allen, Frank E.
Barnhart, M. Amanda
Caster, Ella Lillian
Draper, Frank Burke
Griffin, Stanley C.
Inamoto, Otto O.
Kulp, Esther R.
Loud, Edward R.
Palmatier, Charles Henry
Staley, Frances Jane
Staley, John Wilson
Wilder, Allen J.

DEGREE OF PH. B.

Burnham, Smith
Landon, Arthur L.
Godfrey, Irving Julius

DEGREE OF B. S.

Anderson, Louis W.
Majima, Josse Otohiko
Parmeter, Rolland Louis
Parsons, Emma Jean
Sharer, Charles Herbert

CONSERVATORY OF MUSIC—DIPLOMA.

PIANO.

Barrett, Bertha
Brabb, Rosetta
Perkins, Amelia
Raymond, Alma

Bunday, Blanche
Frambes, Pearl
Munro, Lois Louise
Rork, Anna Genevieve
Sutton, Stella
True, Verne

VOICE.

Barnhart, M. Amanda
Howlett, Marion

VIOLIN.

Wiselogel, Rose Ethel

SCHOOL OF PAINTING.—DIPLOMA.

Allen, Ida May
Brown, Gertrude Mae
Robinson, Sybil
Wagner, Dora May

COMMERCIAL DEPARTMENT.—DIPLOMA.

BUSINESS COURSE.

Bibbins, George Gary
Black, Ena May
Brown, George William
Delbridge, John Bert
Grimes, A. Curtis
Hartung, William P.
Lewis, Iton V.
Merrill, Fred Willis
Pitts, Dora
Semon, Bert Dodge

SHORTHAND COURSE.

Clancy, Priscilla
Crook, Herbert W.
Escher, Emily Blanche
Frambes, William P.
Howe, Gilbert D.
Ott, Nettie Lovenia
Pitts, Dora
Roberts, William H.
Urch, May E. G.
Williams, Emma D.

Wiselogel, Rose Ethel

STUDENTS IN COLLEGE OF LIBERAL ARTS.

GRADUATES STUDYING IN ABSENTIA FOR MASTER'S DEGREE.

NAME.	RESIDENCE.
Barnhart, Alice H	Mason
Downing, Elliott R	Beloit, Wis.
Graham, Hugh A	Calkinsville
Pierce, Dollie Grace	Utica
Reed, Milton O	Deer Lodge, Mont.
Welch, Mary D	Schoolcraft
Wolf, Henry E	Calumet

SENIORS.

NAME.	COURSE.	RESIDENCE.
Allen, Frank E	Cl	Albion
Anderson, Louis W	Sc	Albion
Barnhart, M. Amanda	Cl	Sparta
Burnham, Smith	Lat Sc	Climax
Caster, Ella L	Cl	West Bay City
Draper, Burke	Cl	Chicago, Ills.
Godfrey, Irving J	Lat Sc	Parma
Griffin, Stanley C	Cl	Albion
Inamoto, Otto O	Cl	Hakodate, Jap.
Kulp, Essie R	Cl	Battle Creek
Landon, Arthur L	Lat Sc	Springport
Loud, Edward R	Cl	Albion
Majima, Otohiko	Sc	Kanda, Tokio, Jap.
Palmatier, Charles H	Cl	Bonfield
Parmeter, Rolland L	Sc	Albion
Parsons, Emma Jean	Sc	Big Rapids
Sharer, Charles H	Sc	Cedar Springs
Staley, Fannie J	Cl	Grayling
Staley, J. Wilson	Cl	Grayling
Wilder, Allen J	Cl	Albion

Cl.—Classical. Lat. Sc.—Latin Scientific. Sc.—Scientific. L.—Letters.

JUNIORS.

NAME.	COURSE.	RESIDENCE.
Agard, Emma G	Lat Sc	Litchfield
Arnold, John F	Cl	Albion
Barrett, Bertha	L	Niles
Cutler, Ira E	Sc	Putnam, Conn.
Dodds, Frank E	Cl	Ionia
Doolittle, Alice L	L	Albion
Elder, Fannie J	Cl	Kalamazoo
Ellett, Oren D	Lat Sc	Albion
Ferguson, Geo. B	Sc	Albion
Graves Jas. C	Sc	Albion
Hathaway, Marian L	Sc	Addison
Hopkins, Mima J	Cl	Owosso
Hughes, David A	Let	Liverpool, England
Jacobs, Charles S	Cl	Albion
Kirk, George R	Cl	Plainfield, Ohio
Lampman, Walter A	Sc	Albion
Marsh, Kate M	Cl	Albion
Marshall, John J	Lat Sc	Aurelius
McDonald, Ray G	Lat Sc	Flint
Miller, Roy N	Lat Sc	Mason
Moors, Myrte D	Cl	Greenville
Osborne, Helen E	Cl	Concord
Rork, Genevieve A	Lat Sc	Agnew
Ruoff, Carl J. G	Cl	Albion
Schultz, Samuel	Lat Sc	Lansing
Simmonds, Wm. H	Cl	Marshall
Urch, May E. G	L	Clarkston
Uren, Louise H	Let	Calumet
Warren, Oscar B	Sc	St. Joseph
Welch, John W	Cl	Schoolcraft
Williams, Arthur S	Cl	Albion
Wooten, Ralph	Cl	Hastings

SOPHOMORES.

NAME.	COURSE.	RESIDENCE.
Allen, Clarence E	Cl	Detroit
Allen, Martha	L	Pontiac
Arnold, Henry B	Lat Sc	Marshall
Beddow, Ira A	Lat Sc	Southfield
Birdsey, Corbon P	Cl	Benton Harbor
Brockway, Martha A	L	Albion
Carr, Bert M	Lat Sc	Cedar Springs
Clark, Mabel L	L	Albion
Cogshall, Grace A	Cl	Grand Rapids
Conklin, Alice L	Cl	Dowagiac
Cook, Newell	Sc	Hanover
Crampton, Bert A	Cl	Hadley
Deal, Clarence E	Cl	Kalamazoo
Ellett, Lizzie M	Let	Albion
Engle, Wilber D	Cl	Petoskey
Ford, Selden B	Cl	Walworth, N. Y.
Garfield, Mary	Lat Sc	Albion
Graves, Agnes F	Lat Sc	Albion
Hull, E. Sidney	Sc	Albion
Hunt, May B	Cl	Albion
Kerr, Neil M	Cl	Petrolia, Kas.
Ludlum, Headley O	Cl	Ovid
Mains, Wesley H	Let	Spring Arbor
Mays, Hattie B	Cl	Albion
Mealley, John E	Cl	Albion
Moulton, Forrest R	Cl	Le Roy
Mulholland, Clarence M	Lat Sc	Au Sable
Munro, L. Louise	Lat Sc	Bay City
Newman, Ralph	Cl	Jackson
Osborne, Frank J	Lat Sc	Sheridan
Rice, Will F	Lat Sc	Los Angelos, Cal.
Robinson, Sybil G	Let	Albion

Roether, William C	Sc	Albion
Rood, Clement E	Lat Sc	North Adams
Schultz, Arthur F	Lat Sc	Lansing
Sheldon, George F	L	Albion
Siddall, Adelaide	Cl	Plainwell
Simmons, Edna M	Lat Sc	Marshall
Sloate, Ella M	Cl	Albion
Thrasher, Emily E	Lat Sc	Albion
Valentine, Nellie S	Let	Litchfield
Washburn, F. Belle	Lat Sc	West Saginaw
Whalen, Grace A	Lat Sc	Albion
Whitman, Prentiss E	Let	Traverse City
Wright, Warren M	Sc	Ishpeming

FRESHMEN.

NAME.	COURSE.	RESIDENCE.
Allen, Eugene C	Let	Detroit
Allen, Maude	Sc	Albion
Allen, Nettie B	Lat Sc	Albion
Atherton, Lewis	Sc	Ovid
Bruce, Lottie E	Let	Albion
Buck, Wm. B	Cl	Kalamazoo
Calkins, Ethel J	Let	Big Rapids
Campbell, Alfred L	Lat Sc	Albion
Church, Philetus J	Sc	Albion
Clancy, Allora M	Cl	Albion
Clancy, Marshall G	Cl	Albion
Clark, Harry A	Lat Sc	Petoskey
Coffin, Eugene A	Cl	Albion
Cogshall, Wilber A	Sc	Grand Rapids
Cook, Darwin H	Sc	Hanover
Cooley, Fannie F	Cl	Marshall
Cushman, Harry D	Sc	Three Rivers

Dean, Geo. E	Lat Sc	Albion
Dickerson, Lillian B	Lat Sc	Howell
Dickey, Lucinda	Cl	Burlington
Dockry, Alta E	Sc	Big Rapids
Earle, Maude	Cl	Albion
Exner, William A	Cl	Holt
Fast, Z. Elouise	Lat Sc	Mendon
Fenn, Chas. H	Cl	Lapeer
Gibson, Wm. H	Let	Raisinville
Goodenough, Eleanor E	Lat Sc	Ludington
Goodenough, Luman	Lat Sc	Ludington
Greer, Ethel M	Lat Sc	Northville
Grimes, A. C	Lat Sc	Vermontville
Hadden, Abram O	Lat Sc	Marine City
Hamilton, Amanda J	Lat Sc	East Tawas
Helmer, Lizzie A	Let	Parma
Hickey, J. Blanche	Let	Lansing
Hildred, Rob't G	Let	Bervie, Ont
Hiscock, Chas. O	Sc	Ridgeway
Hoaglin, E. Floyd	Sc	Albion
Holmes, Florence M	Lat Sc	Coldwater
Howard, William A	Sc	Tekonsha
Kelly, Wm. A	Lat Sc	Albion
Kempton, Lottie B	Let	North Adams
Kinyon, Pearl L	Let	Quincy
Lampman, F. Belle	Lat Sc	Albion
Lee, David R	Cl	Clay Bank
Lewis, Aden J	Let	Ovid
Loose, Chas. D	Let	Erie
Ludlow, Mary M	Lat Sc	Parma
Ludlow, Stephen H	Cl	Parma
Marsh, Belle	Cl	Albion
Mays, Vernon G	Lat Sc	Albion
Maywood, Ames A	Cl	Lyons
McKeand, Minnie M	Lat Sc	Pontiac

Mills, Winifred E.....Cl.....Mason
Mount, Bert A Lat Sc Parma
Ogden, Arthur Sc.....Augusta
Page, Eugene R.....Lat Sc Petoskey
Parkhurst, Gertude Let Decatur
Pealer, Matie A.....Sc Three Rivers
Perkins, Amelia.....Let.....Norway
Perkins, Bessie.....Let.....Norway
Perkins, Mary.....Let.....Norway
Perrin, C. Hollister.....Lat Sc.....Tecumseh
Perrott, Stanford.....Lat Sc.....Pulaski
Phelps, William H.....Let.....Kalamazoo
Pooley, William J.....Cl.....Scales Mound, Ill.
Potter, Louis M.....Cl.....Leslie
Potter, M. Chase.....Cl.....Mancelona
Ravn, Anton H.....Sc Hadersleben, Ger
Riddick, Carl W.....Lat Sc.....South Lyon
Rowe, Mabel A.....Lat Sc.....Mason
Salisbury, Geo. W.....Sc Phelps, N. Y.
Shearer, Adelia M.....Let.....Jackson
Smith, L. Clare.....Let Albion
Smith, Mabel E.....Let Albion
Snook, William C.....Lat Sc.....Mason
Sturgis, Linna.....Cl.....Bluffton, Ind.
Swarthout, Lloyd.....Let Ovid
Taylor, Ralph W.....Cl.....Albion
Valentine, Chas. S.....Cl.....Litchfield
Valentine, Edith B.....Let Three Oaks
Way, Roy B.....Lat Sc.....Elsie
Wilkerson, DeWitt..... Lat Sc.....Dundee
Wood, Andrew W.....Lat Sc.....Cass City

STUDENTS IN PREPARATORY SCHOOL.

FOURTH YEAR.

NAME.	COURSE.	RESIDENCE.
Angevine, Orley C	Lat Sc	Mendon
Avery, Elizabeth E	Sc	Phelps, N. Y.
Batt, Nellie Z	Cl	Tekonsha
Brown, Gertrude	L	Albion
Field, Pearl	Sc	Albion
Gulick, Claire W	Cl	Albion
Johnson, William A	Cl	Mancelona
Kendrick, W. F	Cl	Dryden
Kirk, June E	L	Albion
Landon, John I	Lat Sc	Springport
Longstreet, William R	Lat Sc	Saginaw
Martinson, John S	Lat Sc	Tekonsha
McCallum, Geo. P	Lat Sc	Piper
McPherson, Chas	Lat Sc	Eckford
Morehouse, Carl W	Lat Sc	Albion
Mount, John L	Lat Sc	Parma
Mowry, John L	Cl	Sherwood
Parmater, Vieva S	Lat Sc	Gaylord
Perine, Roy E	Sc	Albion
Popoff, Minco D	Cl	Albion
Randall, Ray A	Sc	Homer
Riddick, Florence M	Cl	South Lyon
Shipp, Frank J	Let	Marshall
Simmons, S. Belding	Sc	Albion
Vincent, Maude M	Cl	Three Oaks
Wightman, Richard R	Cl	Albion
Wilder, Geo. P	Lat Sc	Albion

THIRD YEAR.

NAME.	COURSE.	RESIDENCE.
Austin, Mary H	Lat Sc	Albion
Bradner, Edward J	Cl	St. Johns
Bullen, Ada M	Lat Sc	North Aurelius
Church, Mary H	Cl	Albion
Clark, Belle A	Lat Sc	Williston, Vt.
Cooper, Adrian F	Lat Sc	Albion
Corbin, Ernest	Cl	Williams
Davis, Helen A	Cl	Albion
Dickie, Clarissa	Let	Albion
Dunning, Phena M	Lat Sc	Albion
Eastman, Harry	Lat Sc	Albion
Ellis, Metta S	Let	Clarendon
Finch, Geo. E	Lat Sc	Jackson
Folsom, Isabelle D	Sc	Detroit
Gardner, Theo	Cl	Albion
Gill, Francis H	Cl	Pauri, India
Hodgkins, May I	Lat Sc	Grand Rapids
Hungerford, Hattie E	Lat Sc	Albion
Janes, Frank C	Lat Sc	Mosherville
Joy, M. Grace	Lat Sc	Springport
Marsh, Ernest M	Sc	Albion
Marson, Chas. C	Lat Sc	Stephenson
Marvin, W. E	Cl	Hartland
Mason, Myrtle M	Lat Sc	Battle Creek
McDonald, Jas. D	Cl	Pickford
Ross, Richard R	Cl	Almont
Woods, Josephine	Lat Sc	West Branch

SECOND YEAR.

NAME.	COURSE.	RESIDENCE.
Banks, Walter G	Cl	Albion
Barry, Jas. E	Cl	Sheridan
Champion, H. Louise	Let	Lansing

Clark, Frank W.	Let	Williston, Vt.
Coykendall, Minnie M	Cl	Albion
Foster, Julia	Lat Sc.	La Porte, Ind.
Freeman, Mark S	Cl	Albion
Frost, H. Belle	Let	Albion
Gill, B. Ensign	Sc	Pauri, India
Hallead, Walter J	Cl	Piper
Holt, Alfred M	Let	Mogollon, N. M.
Jordan, Grace D	Lat Sc	Albion
Loveland, Grace	Lat Sc	Comstock
McCormick, Peter F	Cl	Gladwin
Mowry, Chris. N	Cl	Sherwood
Narrin, John	Lat Sc	Ortonville
Nilsson, John W	Lat Sc	Liberty
Peer, Sadie C	Let	Comstock
Ray, Ralph L	Lat Sc	Parma
Sheehan, John W	Let	Somerset, N. Y.
Van Alstine, Rufus W	Cl	Bay City

FIRST YEAR.

NAME.	COURSE.	RESIDENCE.
Beal, Harold M	Lat Sc	Albion
Benson, Gertrude	Lat Sc	Albion
Brown, Ruth M	Lat Sc	Springport
Coggswell, Carrie E	Lat Sc	Abscota
Fall, Frank	Lat Sc	Albion
Fuller, Howard S	Cl	Grand Rapids
Gambee, Edwin T	Lat Sc	Newport
Griffin, Charles	Cl	Ishpeming
Hadwin, Lillie	Lat Sc	Burlington
Lester, D. Roy	Lat Sc	Marine City
McDowell, Clarence	Sc	Bay City
McDowell, W. S	Sc	Bay City
Newton, Arthur G	Cl	South Bay City
Osborn, Jas	Lat Sc	Ishpeming
Peer, Archie R	Cl	Comstock

Roether; Henry E	Cl	Albion
Shafer, Leon E	Cl	Mendon
Sheehan, Kate	Sc	Somerset, N. Y.
Sutton, Florence A	Lat Sc	Clayton
Tubbs, Chauncey	Cl	Paw Paw
Upton, Jessie A	Cl	Fitchburg
Verran, Essie K	Let	Republic
Wager, Norman	Cl	Waterford
Wixom, Anna L	Let	Wixom
Wood, Edwin E	Cl	Ionia

PUPILS IN ACADEMIC DEPARTMENT.

NAME.	RESIDENCE.
Anderson, Clinton H	Albion
Armstrong, Judson V	Stockbridge
Bachelder, Jennie	Clayton
Bahel, Blanche M	Otsego Lake
Bauer, W. J	Albion
Bates, Rea W	Ransom
Bibbins, Carl	Moscow
Bradley, Herbert	Eckford
Bullen, Amy V	North Aurelius
Burnham, Philip S	Climax
Campbell, Mattie	Parma
Chapman, Ernest L	Fowlerville
Church, Chandler M	Albion

Church, Hamilton H.....San Francisco, Cal.
Clark, Ben A.....Mayville
Clark, Bertha M.....Shelby
Clark, Kittie A.....Mayville
Clark, Lulu.....Mayville
Clark, Lillian.....Holly
Clark, Starr.....Albion
Colman, W. H.....La Crosse, Wis.
Coffin, Minnie.....Albion
Colvin, Hiram C.....Pontiac
Cook, Reula G.....Flint
Cotten, Roger.....Albion
Coultes, Chas. H.....Grand Rapids
Davison, Judd.....Albion
Dean, Walter E.....Albion
Dopp, Della.....Reading
Edmunds, Arthur M.....Banfield
Edmunds, Nellie M.....Banfield
Elliott, Dora M.....Albion
Ely, Chas. E.....Sheridan
Fox, Leonard.....Grand Rapids
Frook, Wm.....LeRoy
Giesman, Lillian.....Manistee
Gleason, Arden E.....Albion
Goodyear, De Mont.....Swartz Creek
Hall, Chant M.....Albion
Hamilton, Calvin.....Eckford
Harris, Henry.....Opechee
Heys, Mabel.....Albion
Hempstead, Fred H.....Flint
Hicks, W. Chas.....Ishpeming
Hitchcock, Mary C.....Detroit
Holmes, Clyde J.....Grand Rapids
Horton, Carlton.....Albion
Horton, Robt. G.....Albion

Johns, A. Raymond.....Lake Linden
Kendrick, W. S.....Albion
King, Minnie E.....Calumet
Koons, Ella J.....White Oak
Krenerick, Fred E.....Albion
Laity, Thos.....Iron Mountain
Leaman, Emma.....Chelsea
Mallarian, C. H.....Detroit
Matthews, Ada C.....Benzonia
McLean, Norman E.....Flint
McWethy, Louie.....Rice Creek
Mealley, Mrs. Annie E.....Albion
Merrill, Chas. M.....Big Rapids
Merrill, L. Adella.....Clarksville
Mitchell, Lillian A.....Negaunee
Morris, Arthur J.....Inland
Morris, Ida M.....Inland
Nowlin, Herbert C.....Albion
O'Hara, Wm. F.....Albion
Palmer, Abbie S.....Albion
Peck, Bert D.....Albion
Pitts, Dora.....Colon
Proctor, Clark.....Wallace, Ills.
Purdue, Henry J.....Pickford
Reamer, Lillian.....Shelby
Reichow, J. F.....Chippewa Lake
Reusch, Moses E.....Ionia
Reynolds, Hardie L.....Fennville
Roberts, Arthur J.....Central Mine
Roberts, Wm. H.....Ishpeming
Rodgers, Jinks S.....Summerville
Rowe, Henry L.....Manchester
Sanderson, Ruby.....Colon, Neb.
Schaffmaster, Alice.....Bronson
Schaffmaster, Hartley G.....Bronson

Seaman, Ernest E.....Bailey
*Shepard, Jessie M.....Albion
Simmons, Arthur W.....Duplain
Simmons, John U.....Roseburg
Skinner, Henry G.....Marshall
Starks, Annabel.....Marengo
Steele, Edgar.....Albion
Stevens, M. J.....Negaunee
Sutton, Maggie A.....Clayton
Temple, Thos. H.....Algonac
Thomson, Bernard C.....Detroit
Thompson, Louis L.....Greenville
Tuttle, Maggie Albion
Uren, Andrew.....Calumet
Wagner, Dora M.....Albion
Wagner, Jennie.....Albion
Warner, Edward F.....Albion
Washington, Isaiah.....Lansing
Wheeler, Ephraim W.....Cedar Springs
White, Geo. H.....Anderson
White, Jas. O.....West Bay City
Wightman, Renfrew A.....Albion
Wills, Libbie A.....Calumet
Winslow, Minnie R.....Kalamazoo
Younglove, Lulu A.....Edwardsburg

*Deceased.

STUDENTS IN DEPARTMENT OF ORATORY.

NAME.	RESIDENCE.
Allen, Martha E	Pontiac
Angevine, Orley C	Mendon
Annis, Minnie	Albion
Annis, Rena	Albion
Arnold, Henry B	Marshall
Austin, Mary H	Albion
Beal, Harold M	Albion
Beal, Chas. J	Albion
Brezette, Hattie	Albion
Brooks, Clemmie M	Parma
Bruce, Bessie	Albion
Buck, Wm. B	Kalamazoo
Burnham, Mrs. Anna G	East Homer, N. Y.
Campbell, Alfred L	Albion
Clark, Mary	Shelby
Clark, Harry A	Petoskey
Clark, Mabel	Albion
Conklin, Alice L	Dowagiac
Cook, Darwin H	Hanover
Cooley, Fanny F	Marshall
Cushman, Harry D	Three Rivers
Dalrymple, Hattie	Albion
Deal, Clarence E	Kalamazoo
Densmore, Myrtie	Albion
Dickerson, Lillian	Howell
Elms, Mabel	Albion
Ford, Lena	Albion
Goodenough, Eleanor E	Ludington
Green, Vinnie	Albion
Grimore, Geo	Augres

Hallead, Walter J.....Piper
Hicks, Wm. Chas.....Ishpeming
Hildred, R. G.....Bervie, Ont.
Hungerford, Perry.....Albion
Johns, A. Raymond.....Lake Linden
Jordan, Grace D.....Albion
Laity, Thos.....Iron Mountain
Lester, Gladys L.....Marine City
Loose, Chas. D.....Erie
Loveland, Grace.....Comstock
Ludlow, Ruth.....Albion
Ludlow, S. E.....Parma
Majima, J. O.....Tokyo, Japan
Matson, Stella.....Albion
Marvin, W. E.....Hartland
McDonald, James D.....Pickford
Mount, John L.....Parma
Murdock, Ella.....Albion
Myhill, Leo.....Albion
Ogden, Arthur J.....Augusta
Osborn, Frank I.....Sheridan
Page, Eugene R.....Petoskey
Peer, Archie.....Comstock
Perrine, Fred.....Albion
Phelps, Wm. H.....Kalamazoo
Pitts, Dora.....Colon
Pooley, Wm. J.....Scales Mound, Ill.
Potter, Louis M.....Leslie
Powers, Nellie.....Albion
Pugsley, Kate.....Albion
Raub, Kittie.....Albion
Reamer, Lillian.....Shelby
Riddick, Florence M.....South Lyon
Riddick, Carl W.....South Lyon
Salisbury, Geo. W.....Phelps, N. Y.

Schultz, Samuel.....Lansing
Shepard, Flora.....Albion
Stark, Lena.....Albion
Steele, Harold.....Albion
Stevens, M. J.....Negaunee
Stone, Sadie.....Albion
Uren, Mrs. Louise.....Albion
Urch, Mary E. G.....Clarkston
Voorhies, E. F.....Albion
Warner, Edward F.....Albion
Way, Roy B.....Elsie
Whitman, Prentiss E.....Traverse City
White, Geo. H.....Anderson
Wiselogle, James.....Albion

STUDENTS IN CONSERVATORY OF MUSIC.

PIANO.

POST GRADUATES.

NAME.	RESIDENCE.
Brown, Grace	Albion
Coney, Eva L	Albion

GRADE VII.

Barrett, Bertha.....Niles
Brabb, Rosetta C.....Romeo
Bunday, Blanche M.....Albion
Frambes, Pearl.....Albion
Munro, Louise.....Bay City
Perkins, Amelia.....Norway
Raymond, Alma.....Jackson
Rork, Genevieve.....Agnew
Sutton, Stella.....St. Clair
True, Verne.....Jackson

GRADE VI.

Allen, Nettie.....Albion
Burrall, K. Louise.....Albion
Crittenden, Ora.....Albion
Calkins, Ethel.....Big Rapids
Dickie, Clarissa.....Albion
Dwelley, Mary.....Fostoria
Davidson, Eusebia.....Port Huron
Gale, Georgina.....Albion
Jones, Graydon.....Ashland, Ky.
Powers, May.....Springport
Rouse, Lulu.....Homer
Shearer, Delia.....Jackson
Starks, Annabel.....Marengo
Stevens, Adah.....Devereaux
Walmouth, William.....Detroit

GRADE V.

Brockway, Martha A.....Albion
Caldwell, Mabel.....Mason
Dissette, Fannie.....Albion
Ennis, Imo.....Brooklyn
Eddy, Myrta.....Adrian
Emmons, Bertha.....Albion
Fairchild, Gertrude.....Three Rivers
Groff, Nellie.....Albion
Gale, Winifred.....Albion
King, Minnie E.....Calumet
McKeand, Minnie.....Pontiac
Mitchell, Lillian.....Negaunee
Parshall, Carrie.....Hartland
Shaffmaster, Alice.....Bronson
Smith, Rose.....Sunfield
Stevens, Adell.....Parma
Tucker, Maggie.....Concord
Valentine, Edith B.....Three Oaks

Wood, Mae.....Chelsea
Wood, M. Ella.....Leslie

GRADE IV.

Clark, Irene.....Albion
Clute, Ruth.....Dundee
Fast, Elouise.....Mendon
Garnsey, Nellie.....Mayville
Hickey, Blanche.....Lansing
Kinyon, Pearl.....Quincy
Kirk, June.....Albion
Monteith, Jessie.....Martin
Matthews, Ada.....Benzonia
Osman, Hortense.....Nashville
Palmer, Julia W.....Albion
Pugsley, Mary.....Albion
Rowe, Mabel.....Mason
Roode, Kate.....Albion
Rouse, Leora.....Homer
Staley, Fannie.....Grayling
Taylor, Celeste.....Chelsea
Verran, Essie K.....Republic
Webster, Claude.....Eaton Rapids

GRADE III.

Allen, Alta M.....Albion
Avery, Elizabeth.....Phelps, N. Y.
Bonnett, Louise.....Newton
Bruce, Lottie.....Albion
Clark, Lulu.....Mayville
Goodenough, Eleanor.....Ludington
Holcomb, Carrie.....Fowlerville
Koons, Ella J.....White Oak
Miller, Fanny.....Rome City, Ind.
Palmer, Abbie S.....Albion
Sutton, Maggie.....Clayton
Saunders, Carrie.....Union City

Trumbull, Carrie J.....Sandstone
Uren, Louise P.....Calumet
Wightman, Renfrew A.....Albion
Wixom, Annie L.....Wixom

GRADE II.

Austin, Mary.....Albion
Banks, Walter.....Albion
Clack, Therel.....Albion
Greeley, Gertrude.....Albion
Jacobs, Edith.....Albion
Perkins, Bessie.....Norway
Smith, Mabel.....Albion
Smith, Clare.....Albion

GRADE I.

Bowles, Edith.....Albion
Dalrymple Hattie A.....Albion
Glascoff, Hattie.....Albion
Morrell, Myrtie.....Albion
Monroe, Marian.....Albion

VIOLIN.

GRADE VII.

Wiselogel, Ethel.....Pulaski

NOT GRADED.

Close, Fred.....Albion
Cole, Maggie.....Albion
Corliss, Arthur.....Albion
Dickie, Nellie.....Albion
Gemberling, Adelaide.....Albion
Jacobs, Leon.....Albion
Jones, Graydon.....Ashland, Ky.
McKinney, Lida.....Quincy
Miller, Fanny.....Rome City, Ind.
Munro, L. Louise.....Bay City
Palmer, Julia W.....Albion
Perkins, Mary.....Norway

Roether, Henry.....Albion
Shaffmaster, Alice.....Bronson
Shaffmaster, Hartley.....Bronson
Shearer, Delia.....Jackson
Smith, Mabel.....Albion
Smith, Clare.....Albion
Smith, Josie.....Albion
Van Schoick, Ella.....Albion

CELLO.

Emmons, Bertha.....Albion

GUITAR.

Beard, Maud.....Albion
Campbell, Alfred.....Albion
Fairchild, Gertrude.....Three Rivers
Holt, Alfred M.....Mogollon, N. M.
Lewis, Aden J.....Ovid
Mount, Bert.....Parma
Perrine, Edith L.....Valley City, N. Dak.
Ray, Mrs. Leslie.....Albion
Sheets, Mrs. E.....Albion
Uren, Andrew.....Calumet
Valentine, Edith.....Three Oaks
White, Jessie.....Litchfield

MANDOLIN.

Ludlow, Stephen H.....Parma

BANJO.

Gibson, Wm. A.....Raisinville

FLUTE.

Dickie, Ada.....Albion
Perine, Roy.....Albion

CLARINET.

Dickie, Claude.....Albion

CORNET.

Loveland, Grace.....Comstock

PIANO STUDENTS NOT GRADED.

Brooks, Clemmie.....Parma

Camburn, Adda.....Adrian
Fuller, Howard.....Grand Rapids
Hitchcock, Mary C.....Detroit
Hudson, Ada.....Akron, O.
Heliker, Minnie.....Burlington
Kern, Ota.....Homer
Lester, Gladys.....Marine City
Loud, Genevieve.....Albion
Lane, Louise.....Homer
Landon, Louis.....Springport
McKinney, Lida.....Quincy
Peppett, Fanny.....Homer
Smith, Josie.....Albion
Wheeler, Florence.....Shelby

PIPE ORGAN.

Barrett, Bertha.....Niles
Calkins, Ethel.....Big Rapids
Camburn, Adda.....Adrian
Eddy, Myrta.....Adrian
Fairchild, Gertrude.....Three Rivers
Perrine, May Lewis.....Eaton Rapids

REED ORGAN.

Riddick, Carl W.....South Lyon

VOICE.

Avery, Elizabeth.....Phelps, N. Y.
Barnhart, M. Amanda.....Sparta
Barr, Charles E.....Albion
Bates, Rea W.....Ransom
Black, Ena M.....Cedar Springs
Bonnett, Louise.....Newton
Brockway, Martha.....Albion
Brooks, Clemmie M.....Parma
Brown, Grace.....Albion
Bruce, Mrs. A. G.....Albion
Bruce, Bessie.....Albion
Bruce, Lottie.....Albion

Caldwell, Mabel.....Mason
Canrick, Mabel.....Coldwater
Clancy, Lora.....Albion
Clark, Belle.....Williston, Vt.
Clarke, Lillie G.....Holly
Coney, Eva L.....Albion
Cortright, H. J.....Springport
Coultes, C. H.....Grand Rapids
Cutler, I. E.....Putnam, Conn.
Edmunds, Nellie.....Bonfield
Gale, Chas. B.....Albion
Garfield, D. A.....Albion
Giesman, Lillian.....Manistee
Goodenough, Eleanor.....Ludington
Griffin, S. C.....Albion
Helmer, Lizzie.....Parma
Hicks, W. C.....Ishpeming
Howlett, Marian.....Albion
Hull, W. C.....Albion
Johns A. Raymond.....Lake Linden
Keller, Lulu D.....Albion
Kempton, Lottie.....North Adams
Knickerbocker, Mrs. Chas.....Albion
Krenerick, Mary.....Albion
Lampman, F. Belle.....Albion
Lewis, A. J.....Ovid
Longstreet, Wm.....Saginaw
Ludlum, H. O.....Ovid
Mills, Winifred.....Mason
Montieth, Jessie.....Martin
Mount, John.....Parma
Osman, Hortense.....Nashville
Parshall, Carrie.....Hartland
Perkins, Amelia.....Norway
Rafter, Chas.....Albion

Rafter, Frank.....Albion
Rouse, Leora.....Homer
Shank, J. L.....Albion
Sheldon, Mrs. J. H.....Albion
Skinner, H. C.....Marshall
Todd, Lola.....Albion
Travis, Cora.....Albion
Van Ostrand, Alice.....Yankton, Dak.
Van Schoick, Robert.....Albion
Van Schoick, Ella.....Albion
Van Schoick, Mrs. R. W.....Albion
Van Schoick, Mrs. Robert.....Albion
Verran, Essie K.....Republic
Warboys, C.....Albion
Warren, O. B St. Joseph
Whalen, Grace.....Albion
Whitcomb, Jean.....Albion
White, G. H.....Anderson
Worthington, Jennie.....Albion
Wood, Mae.....Chelsea

STUDENTS IN THE ART DEPARTMENT.

NAME.	RESIDENCE.
Albertson, Nellie	Albion
Albertson, Mrs. H. M	Albion
Allen, Ida M	Albion
Allen, Nettie B	Albion
Batt, Nellie	Tekonsha
Brabb, Anna	Romeo
Brown, Gertrude M	Albion
Bruce, Lottie	Albion
Champion, Louise	Lansing
Clark, Frank	Williston, Vt.
Clark, Mabel	Albion
Cunningham, Mrs. Jessie	Bay City
Dick, Mrs. S. M	Albion
Dickie, Ada	Albion
Ellett, Lizzie M	Albion

Gale, Winifred.....Albion
Ganyard, Martha E.....Albion
Glenn, Mrs. Carrie.....Marquette
Goodenough, Eleanor.....Ludington
Goodenough, L.....Ludington
Gulick, Lillian.....Albion
Hathaway, Marian L.....Addison
Hitchcock, Mary C.....Detroit
Holmes, Florence.....Coldwater
Kirk, Mrs. Mary.....Albion
Lester, Gladys L.....Marine City
Marzolf, Laura May.....Stanwood
McPherson, M.....Albion
Myhill, Leo.....Albion
Monroe, Gale.....Albion
Moore, Mrs. Susan E.....St. Louis, Mo.
Parkhurst, Gertrude.....Decatur
Powell, Grace.....Tekonsha
Randolph, Nancy.....Marshall
Raub, Nettie.....Albion
Robinson, Sybil G.....Albion
Sturgis, Linna.....Bluffton, Ind.
Valentine, Nellie.....Litchfield
Wagner, Dora.....Albion
Young, Mary E.....Parma
Younglove, Lula.....Edwardsburg

PUPILS IN DECORATIVE ART DEPARTMENT.

Avann, Mrs. Rob't.....Albion
Barr, Mrs. Chas. E.....Albion
Bissell, Bertha.....Albion
Brown, Gertrude.....Albion
Bruce, Mrs. A. G.....Albion
Bruce, Lottie.....Albion
Champion, Louise.....Lansing
Davis, Mrs. William.....Albion
Dearing, Mrs. Palmer M.....Albion

Dunbar, Mrs. R. H Parma
Gale, Mrs. Flora Albion
Garfield, Mrs. H. H..... Albion
Goodenough, Eleanor..... Ludington
Hoaglin, Mrs. F. F..... Albion
Holmes, Florence Coldwater
Kessler, Mrs. W. S..... Albion
Knickerbocker, Mrs. W. B..... Albion
Lester, Gladys..... Marine City
Moore, Mrs. Susan E..... St. Louis, Mo.
Parmeter, Mrs. E. L..... Albion
Sturgis, Linna Bluffton, Ind.
Washburn, Belle..... Saginaw
Welch, Mrs. Rollin C Albion
Wood, Mrs. O. B..... Albion

STUDENTS IN COMMERCIAL DEPARTMENT.

BUSINESS COURSE.

Allen, F. E..... Albion
Anderson, C. H..... Albion
Angevine, O. C..... Mendon
Armstrong, Wortley T..... Kalamazoo
Atherton, Lewis..... Ovid
Ball, William D..... Albion
Bancroft, J. T Otter Creek
Barker, Chas Albion
Barrett, Bertha..... Niles
Batt, Nella..... Tekonsha
Benson, Gertrude Albion
Bibbins, George G..... Moscow
Bibbins, Carl..... Moscow
Bigelow, Chas. Gale..... Albion
Black, Ena M..... Cedar Springs
Bradley, Herbert..... Eckford
Brown, George W..... Flint
Callahan, J. H..... Albion
Church, P. J..... Albion

Clark, J.....Albion
Coggswell, Carrie.....Abscota
Davidson, Judson M.....Albion
Dean, Walter E.....Albion
Delbridge, J. Bert.....Albion
Elliott, A. D.....Albion
Elliott, Dora A.....Albion
Escher, Emily.....Albion
Ferguson, Geo. B.....Albion
Folsom, Isabelle.....Detroit
Frambes, Wm. P.....Albion
Gambee, Edwin T.....Newport
Gibson, W. A.....Raisinville
Gill, B. Ensign.....Pauri, India
Gill, Francis H.....Pauri, India
Gleason, A. E.....
Grimes, A. Curtiss.....Vermontville
Hadwin, Lillian.....Burlington
Hamilton, Calvin S.....Eckford
Hartung, W. P.....Albion
Hickey, J. Blanche.....Lansing
Holt, A. M.....Mogollon, N. M.
Hooper, George.....Pulaski
Howard, W. A.....Tekonsha
Horton, Carlton.....Albion
Hull, E. Sidney.....Albion
Joy, M. Grace.....Springport
King, Minnie E.....Calumet
Koons, Ella J.....White Oak
Krenerick, F. E.....Albion
Lampman, Walter A.....Albion
Landon, Arthur L.....Springport
Lester, D. Roy.....Marine City
Lewis, A. J.....Ovid
Lewis, Iton V.....Marengo
McDowell, Clarence.....Bay City
McDowell, Wm. S.....Bay City
Merrill, Fred W.....Flint
Mitchell, Lillian.....Negaunee
Narrin, John.....Ortonville
Nilsson, John W.....Liberty
Nowlin, H. C.....Albion

O'Hara, Wm.....Albion
Ott, Nettie L.....Albion
Palmer, Abbie S.....Albion
Peck, Bert D.....Albion
Perkins, Mary E.....Norway
Pitts, Dora.....Colon
Popoff, Minco.....Albion
Proctor, Ernest R.....Wallace, Ill.
Randall, Ray A.....Homer
Reichow, John.....Chippewa Lake
Roberts, W. H.....Ishpeming
Rodgers, Jinks S.....Summerville
Roether, Wm. C.....Albion
Semon, Bert D.....Albion
Shepard, Wirt V.....Albion
Thomson, Bernard C.....Detroit
Wilder, Geo. P.....Albion
Wightman, R. A.....Albion
Wood, Andrew W.....Cass City

SHORTHAND COURSE.

Armstrong, Wortley T.....Kalamazoo
Cain, Lulu.....Traverse City
Carrier, Minnie E.....Albion
Clancy, Priscilla.....Albion
Crook, Herbert.....Cadillac
Elliott, Alton D.....Albion
Escher, Emily.....Albion
Folsom, Isabelle.....Detroit
Frambes, W. P.....Albion
Grimes, A. C.....Vermontville
Husted, Grace.....Albion
Merrill, F. W.....Flint
Murray, B. C.....Albion
Ott, Nettie L.....Albion
Pierson, Mary L.....Springport
Pitts, Dora.....Colon
Roberts, Will H.....Ishpeming
Urch, Mary E. G.....Clarkston
Weaver, Hattie.....Albion
Williams, Emma.....Sheridan
Wiselogle, Ethel.....Pulaski

SUMMARY OF STUDENTS.

COLLEGE OF LIBERAL ARTS.

Studying for Master's Degree	7
Seniors	20
Juniors	32
Sophomores	45
Freshmen	83
Unclassified	1—188

PREPARATORY SCHOOL.

Fourth Year	27
Third Year	27
Second Year	21
First Year	25
Unclassified	109—209
Oratory	79—79

CONSERVATORY OF MUSIC.

Piano	110
Pipe Organ	6
Reed Organ	1
Violin	21
Guitar	12
Cello	1
Flute	2
Mandolin	1
Banjo	1
Clarinet	1
Cornet	1
Voice	67
Unclassified Students in Orchestra	15—239

SCHOOL OF PAINTING.

General Art	41
Decorative Art	24— 65

COMMERCIAL DEPARTMENT.

Business Course	80
Shorthand and Typewriting	21—101
	881
Deduct for recounting	271
Total	610

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PART III.

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